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DR. W. J. ROBINSON
DR. W. F. WAUGH
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VOL. 14 MARCH, 1907 NO. 3

What We Do and Don't Do.

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Teach Exclusive Practice	Teach Scientific Therapy
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Let Personal Feeling Rule Us	Urge the Study of Pathology
Advise Secret Remedies	Insist Upon Exact Practice
Malign Our Competitors	Prefer Single Drugs for Single Indications
Claim Omniscience	Use Synergistic Combinations
Put Self-interest First	Endorse and Use all Good Things
Slander Any Part of Our Profession	Preach and Practise Optimism
Mope, Grunt and Groan	Oppose the Spirit of Nihilism
Kill Courage by Pessimism	Fight Fraud, Greed and Sloth

We are Doctors for Doctors, believing that in matters medical the doctor comes first—that he should be worthy of the position and take and hold it, demanding for himself and giving others "a square deal." That these sentiments, which throb in every page, meet a heartfelt response from our readers is evidenced by the rapid growth of "The Clinic Family," which today stands second to none in size, quality, and strength.

The American Journal of Clinical Medicine

THE CLINIC PUBLISHING COMPANY
CHICAGO, U. S. A.

Our Ethics: Think Right, Feel Right, Be Right, "Live and Let Live," Do the Square Thing, Have a Conscience and Use It.

The American Journal of Clinical Medicine

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THE FOUNDATION IS LAID

Why the study of the remedial virtues of medicinal plants must lead to a study of their active principles; and why and how such study is laying the foundation for a therapeutic revolution

THE opening paragraph of the first editorial of the *A. M. A. Journal*, for Nov. 17, is so significant that we ask our readers to refer to it. Speaking of the tendencies of therapeutic development the writer says that the use of the active principles is correct in those cases where these principles actually represent the mother-plant's medicinal activities.

This is a very large and gratifying admission for the *Journal* to make, and in one sense it is all we could ask. Nobody wishes the profession to adopt the alkaloids exclusively, and nobody more emphatically than we has insisted that not all plants can be substituted by single active principles derived from them. Many of the remedies we advocate are simply concentrations from the extracts. Because of this truth, the first step in the way of progress is the admission noted—but it is only the first step, and many more have to be taken before our brethren catch up.

The line of advance runs thus: Beginning with the recognition of remedial virtues in a certain plant, we seek the best preparation of it for use. In succession we eliminate the useless and encumbering elements, the woody fiber, coloring matters, etc., retaining a group of so-called active principles. Of these we usually find a representative of the astringent tannin group, whose action is noxious, hindering the solution and absorption of the more valuable elements, and disordering the digestion. Leaving out such undesirable elements, we find we have left a group of alkaloids, glucosides and other definite principles. Some of these exhibit the desirable qualities for which we employ the plant, others possess other qualities and often antagonize the desirable elements.

Since these antagonistic principles exist in the plant in variable proportions, we are never sure which will predominate in any given specimen until we try it. Having, however, by this time recognized in one or more of the principles the power we seek to invoke in using the plant, we separate this one, or more. and make use of it. Now at last we strike rock bottom. As it always does exactly the same thing, to exactly the same extent, we can experiment with it and ascertain exactly what it is that it will do; and then we can apply it when we want exactly that thing done and no other. As a side line we have found why the parent plant sometimes gives good results; and why it does not

always do so, to exactly the same extent. We can also explain why it is that clinicians occasionally secure an unexpected result from a drug, and utterly fail to repeat the experience on subsequent trials with other specimens of the same drug.

Having at last secured a definite, uniformly acting remedy, we proceed to try it out Having determined its action when given in a state of health, we seek to determine *a priori* in what pathologic conditions this action should be exerted beneficially; and when these conditions present themselves in our clinical cases we apply the remedy and note whether the expected benefits are manifested. If not, either our drug-studies or our diagnosis have been faulty, and we must go over our calculations and detect the error. Of this we are sure, that the drug-action is positive, and this gives us the one firm spot on which to rest our feet. With an absolutely true footrule to start with we can end by measuring the track of the remotest star in the heavens.

Every step in the above chain is unerring, and inevitable. You can no more get away from it than you can from the binomial theorem if you admit that two and two make four. But see where it has led us; instead of an uncertain-in-action-and-strength extract from a plant we have a series of active principles, each with a distinct action that has been determined more accurately than any crude plant preparation possibly could be determined, and each of which is at our service for application, whenever we note that our patients are in need of the precise action of any one of these principles. But here lies our strength and our weakness—we have developed a series of remedies for pathologic conditions and not a series of specific remedies for diseases. The profession persist in asking for a nickel-in-the-slot set of remedies for diseases, so that when they have diagnosed rheumatism they can give so many grains of Number Ten, and for sciatica so many drops of Number Twenty. The remedies we have developed are such as increase or depress such and such functions—temperature, respiratory rate or force, pulse-tension, vasomotor conditions, etc., and it is up to the user to detect these aberrations and treat them, no matter what may be the name of the disease in the course of which they may appear, or the remedy required.

We are painfully aware that the advocacy of this matter has made us enemies. There are many dollars invested in the production and sale of galenics, and Capital objects to radical changes that relegate costly machinery to the scrap heap.

It seems a lot easier for the doctor to go along in the old way, and he doesn't like to commence all over and relearn his profession on new lines.

It's a whole lot easier to prescribe for "scarlatina" than to watch for vasomotor aberrations, and other morbid conditions, and fit remedies to them—at least it *seems easier, though in truth the new way is infinitely more so.*

To all the objections there is one answer—the thing is right and we have got to do it—to come to the point of using definite drugs of known activities to do exactly what these drugs will do.

The movement is only beginning. We have to stand in the market place and shout at the top of our voices to attract attention. We are only forerunners. Scarcely a beginning has been made at the work, and real workers are lamentably few. But we are working for the future. No real or permanent progress can be made until we start right, in the right direction, until our foundation is firmly fixed on the solid rock. The edifice may not rise to the surface during our lives, but that matters little—our life blood will have gone to cement the foundation stones and some worthier but not more sincere men will place the visible parts.

Of the twenty-six active principles of opium two are utilized generally, one very rarely. Two others have received a little study. Hundreds of active principles have been isolated but never utilized. There is no end to the resources of the vegetable materia medica, which are open to ex-

ploitation. The work is too vast to be grasped by any one man. If each did his little share, the aggregate would be enormous. Are you willing to do yours?

The foundation is laid, blocks of indisputable fact cemented with truth into an unbreakable whole—now the structure! It will take time, but it will rise; differences of opinion and factional strifes will retard it, but the end can, should and will be a pride to medicine.

Indeed I would, if I were you
Indeed I would.
I'd have the best that life can give,
If I were you;
And use it hourly while I live,
If I were you.
I'd glean joy from waning years,
I'd cull laughter from my tears,
And a courage build on fears,
If I were you.

—R. W. Norwood

FRATERNALISM OR WHAT ?

In his baccalaureate sermon at Harvard Dr. Lyman Abbott spoke of the new era of fraternalism; and anything coming from him deserves special consideration.

There are three great conceptions of man's relations to man: Autocracy, individualism and fraternalism. The latter is now generally coming into vogue. This is an age of combination. But whether this is always desirable and whether it will ultimately cure the evils under which we labor, is a question.

The formation of trusts, by extinguishing useless and expensive competition, theoretically cheapens the products with which they deal. They also (and this is an established fact) enable greedy men to squeeze the general public for their own benefit. Here the evils of individualism come in to mar the picture. The formation of one trust, however, naturally incites the formation of others, and we now see the industries of the United States drawing together into aggregations of capital on the one side and labor on the other. It begins to look as if necessity would compel every man, the professional man, as well as the lay-worker, to give up his independent position and for self-protection identify himself with one of these groups. Otherwise he bids fair to be ground between the upper and nether millstones.

While we may not yet be ready for such a movement, it is only a matter of time, if matters go on as they have been going, when our medical organizations will be forced to give prominence to the economic question and assume some of the responsibilities now carried for the laboring man by the labor union—bringing among us a *practical* spirit of fraternalism. At present it is difficult, if not impossible, for the physician to obtain needed protection. The following instance will illustrate:

A physician moving from one town to another in the state of Washington obtained from the railroad agent the rate at which freight was to be moved, the goods being weighed. They were stopped half way to their destination, however, and a bill forwarded at which the freight was charged at a large advance upon the rate agreed upon, and about 25 per cent arbitrarily added to the weight. The further information was given that storage would be exacted for each day until the extortionate charges had been paid. A surcharge over and above the foregoing was also added to the bill without any explanation whatever. We could not call such a procedure highway robbery, without doing the footpad injustice.

Nevertheless the complete extension of this principle will, in due course, extinguish such injustices, for as industry becomes fully organized and every individual is ranked with one or another group, these must balance each other, and injustice to any individual would become impossible. It seems that this is the fraternalism toward which society is tending. Not a fraternity of altruism, not an era of peace and good will, of kindness and mercy, but rather the "armed neutrality" of European nations where everyone is on guard against every neighbor, and each is ready to combine with any other to place the curb on

any who develops a power threatening to his neighbors.

It seems a pity that this should be so. How much rather we would go back to those glorious words uttered by heavenly voices nineteen centuries ago, "Peace on earth, good will to men." But this world goes along in ways of its own, and humanity somehow fails to consult those of us who feel that we know in what directions it should best develop. Therefore it behooves every man to take care of himself, to stand on guard, watchful for aggression, and ready at every moment to protect his own interests.

See to your fences, Doctor. Don't expect that every one of your neighbors is going to stand aloof and leave you secure in the possession of what you consider your own personal practice. Mankind is not built that way; and you may depend upon it, if any one else can persuade your best patients that he is a better doctor than you, he is going to do it. We are not excusing him, we are only warning you. There is not an occupation in which man is engaged, which will yield him a living, in which he is secure from competition, fair and unfair. These things are, and will continue to be, until possibly in the far distant future men will weary of the struggle, will become nauseated at the selfishness and greed of their fellows, and will force society into new moulds, possibly on the plan depicted in "Looking Backward." Meanwhile, look out in every direction.

But for the hope of humanity, while thus keeping watchful guard, do not let the well-springs of love for your fellow-man congeal in your breast. The way to bring about that better fraternalism, which is generous and kindly, long-suffering, slow to anger, considerate and merciful of a brother's faults as well as his misfortunes, is to keep alive these sentiments in our own hearts, each one for himself. If we cannot do this, we physicians, of all the world, might as well subscribe to Tolstoi's frightful conclusion, that the human experiment is worked out and might as well be stopped at once.

We are not yet ready to accept this. In spite of the examples of illimitable greed that attract public attention, evidences of kindly spirits and of warm human hearts abound on all sides of us, and we believe that humanity in general was never so ready as at present to adopt as its maxim Buddha's dying injunction: "*Be kind to all that lives.*"

Carve the face from within, not dress it from without. For whoever would be fairer, illumination must begin in the soul; the face catches the glow only from that side.—W. G. Gannett.

SELF-CONTROL: HOW TO KEEP SWEET

In the utmost violence of the enthusiast, or the passionate, there is never the force that exists in the quiet, silent, self-contained man. The hurricane of a Bonaparte whirls by, and the Gibraltar-like steadiness of a Wellington remains unmoved. Loud vociferation does not impress the hearer with a sense of the shouter's strength, but rather with the impression that his cause is weak and he himself feels it, or he would not deem it necessary to howl down the opposition.

When a debater seeks to vilify his antagonist we are sure that he desires to divert the attention of the audience from the argument to the speaker—and this is a confession of defeat. In any matter of public interest, especially of scientific truth, the personality of the contestants should be kept out of sight and the debate be upon questions of principles and facts alone.

The New Idea—which has always been a very good idea—says, that the way to keep ever sweet and pleasant, and to make the other fellow do so too, is to speak in a low voice. There is a whole lot of good in that suggestion. You can not speak low and lose your temper, and if you keep your temper you will win the case. Self-control must win respect, and best of all, self-respect. It may not be easy but what is there that is worth attaining that comes easy? All good things come hard. We have to spend many a weary hour

earning our catechism, but a bad word overheard will never disappear from our consciousness. In fact, we learn to distrust what comes too easily, be it money, love, or the latest fad that sweeps over the medical profession; while the slow grind that squeezes out a little three per cent interest, the sweetheart whose winning taxes our uttermost faculties, and the great advances that a Jenner or a Harvey make, must fight their way to acceptance through the most determined and venomous opposition.

It is what you are, not where you are. If a young man has the right stuff in him, he need not fear where he lives or does his business. Many a large man has expanded in a small place.—Edward Bok.

SUPPORT THE LOCAL JOURNALS

The local journal is the index of the local profession. If you only subscribe for the great metropolitan magazines you are lost in the crowd. Your local journal represents *you*, no matter whether you choose or not. If you contribute to its support, and supply to it your best material, you are elevating yourself in repute as well as your neighbors. Besides, a local periodical always possesses some local color, and in this world of uniformity this is not to be lost.

On our table lies a journal that represents one of the most enlightened parts of the country. It is issued from one of our largest cities, the home of several medical colleges of the highest reputation, and of medical men who rank with the foremost in every department. But this number contains but two original papers—one from a physician in another city, and one by a resident of the home city, not a physician. The bulk of the journal is filled up with abstracts of more or less interest. Not one of the local physicians writes for it, not one of the advertisements comes from a home advertiser, although some of the best houses in the country are located in that city.

Comparatively few of the local journals make a much better showing. It is a rarity to find one with six original papers in it. The January number of CLINICAL MEDICINE contained forty-three papers under their authors' names, besides twenty-two queries, from each of which useful material might be gathered. In addition we have simply a deluge of other articles fully as valuable as any we print, which we can not use, simply because we have not the space.

We are not greedy. We want to live, but we want our brethren to live too, and to prosper—we are sociable and want company. We wish we could place these other papers in the pages of our contemporaries, but how can we do it?

Medical editors are a suspicious set, and we have no right to send another journal what has been contributed to us. Besides, they would stigmatize our offerings as 'left-overs," and decline them. Therefore, we want *you* to send some of your papers to your local journals, as follows:

Our special field is, of course, alkaloidal medicine. We choose papers treating of this work by preference. Many papers come to us of equal value, but we are compelled to give preference to those bearing on the active-principles. Then again, of these there are two kinds, the one being those that present new ideas and observations, the other containing matters that simply verify things that are already familiar to most of our readers. These are not needed in our own journal, but would most admirably meet the needs of the readers of other periodicals who are not familiar with our work. Such papers should be read and discussed at medical meetings, and published in the journals of the state in which the author resides. In this way the influence for good extends where it is most needed, and far beyond our possibilities of projecting it.

Cultivate your home societies, support and write for your home journals, and send us your new and original observations on the action and uses of the active principles. Don't be afraid of giving us too much of this kind of material. Some time ago we gave this advice, and we simply repeat it here because we have seen, as perhaps few others could, the great bene-

fits that have resulted. Agitation is the beginning of wisdom. When a physician finds his neighbor is using new and assertedly superior means and methods, he naturally feels inclined to try them himself; and this is a very different thing from reading about the matter in a journal avowedly devoted to their exploitation.

Write for your local societies, and your local journals.

We thank thee, Lord, for work, that binds our days
Into an ordered plan and keeps our ways
Attuned to system; grasps our scattering powers
And welds them into strength; takes fragment hours
And weaves them into fabrics strong and fair.
W. K. Maxwell.

WORK FOR EVERY ONE

There never was a time when the call to labor of the doctor was so imperative or so incessant. Books and journals are poured out far beyond the possibility of any one man's perusal. Maladies are recognizable far earlier than of yore, and we must be ready to do this and apply the therapeutics at a time when it may yet be effective. New remedies are thrown upon us in shoals, and new studies of old ones demanded by the advances in pathology and physiology.

We must choose our work, and seek to accomplish something by limiting each one of us his field. The choice depends on personal inclination and on opportunity. Fortunately, to the vast mass of the profession the latter points to that field where numerous workers are most needed, that of clinical observation.

There is constant need for the conclusions of the laboratory diagnostician being correlated with clinical appearances. We always need accurate observations as to the symptoms and course of disease, and exceedingly more do we need such observations as to the effects of remedies upon sick men and women. The greatest benefit any clinician can confer on his profession is just to do his own work to the best of his ability and so record it as to make it available for other doctors. Don't worry or belittle yourself because you are not extracting appendices and getting your articles thereon into the big journals. Just work, and do the best work within your capacities.

Study your cases. Learn to know the patient and the disease so that its course may be predicted so surely that any deviation may be at once recognized and assigned to its cause.

Study your drugs. Know them so well that you may foretell how soon their effects will be manifested, how they may be recognized, and what modification they will exert on the disease.

Much of our knowledge of drugs is defective. Many statements made concerning their properties are yet open for discussion, and may be found correct, erroneous, or require modification. This is not laboratory work, but can be done only by the clinician. In no department is the work so important as in the clinical field. It is the regular practician, the family physician, who more than any other holds the key of the position.

Get busy!

PROSPERITY: THE DOCTOR'S RIGHT

According to W. E. Curtis the United States has from 1900 to 1904 increased its possessions from $88,517,306,775 to $107,-104,211,917; a gain of $18,586,905,142. Well may Lipton say that the United States presents the most remarkable and astonishing general prosperity the world has ever witnessed. It is not the great Trusts alone, not the protected manufacturers, but the entire people are simply wallowing in a wealth that marks a new era.

The distribution of this increase is of interest. In four states it amounts to over 30 per cent of the total valuation in 1900 —namely in North Dakota, Oklahoma, Washington and Oregon. Next to these agricultural commonwealths comes the great mining state, Colorado; with Minnesota and Arkansas. Surely mining cannot be such an utter financial failure. Even

with her great coal and iron mines Pennsylvania does not come near this percentage of increase.

What is it that has made this country so prosperous? The industrial development especially. And what has made this so tremendous, if not the business ability and enterprise of our mercantile classes? The following editorial item from the Chicago *Record-Herald* is worth pondering over: "An English merchant visited the United States to gather American ideas to infuse into his business. Looking at an adding machine he was asked if he used one. He replied in the negative, although it was invented twenty years ago. Asked why, he responded, 'I suppose it is because the manufacturer never tried to sell us one.' "

Consider the improvements in every department of human activity—the improvements in machinery, in methods, in products, and all because somebody has had something he wanted to sell. The benefactors of the race are the men who invent, who make, who introduce, who sell, who devise better things and bring these to the knowledge of those who can use the better things. Is it then disgraceful, intrinsically so, to sell goods? As applied to the purveying of supplies for the medical profession this stigma is simply a relic of the dark ages, a medieval prejudice. To prepare and purvey to the physician a better means of relieving human suffering and prolonging human life is as praiseworthy at least as to make and sell a machine capable of turning out a dollar article at a cost of a dime less than it previously cost. Or even the service to humanity of the genius who invents a new puzzle game may dim before that of the man who devises or introduces to the profession a safer anesthetic.

What folly. The man who prides himself on the fact that he doesn't sell anything has mighty little to be proud of. The man who has really made an improvement in our means and sells his product, need not feel very inferior to the other man.

The despicable one is he who slinks, seeking to make money out of his ideas and not let it be known. Hypocrisy is despicable; merchandising is reputable if carried on reputably.

Nevertheless, this stupid, mossgrown prejudice is partly responsible for the backwardness of the medical profession as compared with the rest of humanity. It has fettered the limbs of the worker, and turned the active brains into other pursuits. There has been no premium, but an incubus, resting over the head of him who is dissatisfied with his means and devises better. At the least he is ostracised if he dares to seek that remuneration that would be his in any other walk of life, and he leaves the profession or sits down in idleness.

Nothing is unprofessional that is honest, that is intended to make mankind or any part of it really happier, better, and rightly more prosperous. To the dogs with class fences that curtail the rights of man (of the doctor) in his desire to expand, to do, to rise, even to get his rightful share of this prosperity of ours that is the wonder of the world today.

The limitation and suppression of the liquor traffic forms one of the most important problems in modern society. Thousands and thousands of homes have been broken up, caused by the traffic in intoxicants. This lamentable social condition is traceable in large degree to the legalized saloon.—Judge Ben B. Lindsay.

A WHISKY PROPOSITION

The writer has just received a decidedly queer looking proposition, written on letter paper with an attractive letter-head. The proposition is that the company writing will send us a sample case of twelve assorted bottles of whisky and wine, free of charge, on condition that we recommend it to our friends.

Well, this is a season for presents, and we have no more objection than any other ordinary sort of chap to receiving presents. But in this case we are compelled to decline. In the first place we do not

use the goods, and in the second place we could not consistently recommend our friends to use either the whisky and wine sent out by the donors, or any other brand of these soul-destroyers.

Moreover, the offer is one of those which, supposing we did use such things, is rather too good to be quite true, and if we signed the enclosed memorandum and sent with it $1.85, for carrying charges, etc., as suggested, we would be very much surprised if we ever heard anything more from the matter. Indeed, if 100,000 such circulars were sent out, the profit to the company on receipt of the $1.85 for an expenditure of possibly five cents for printing, clerk hire and addressing, would be so large that we fear in the jubilation following this financial "round-up," they would totally forget to send the goods.

ARE ALL "OLD MAIDS" CRAZY?

In an article on Domestic Service a recent writer quotes the proprietress of a New York intelligence office, who states as her opinion, that all single women over forty years of age who attend such offices are crazy to some extent. This woman speaks of the women with whom she comes in contact. The question arises as to how far this view is applicable to other classes of women who pass the age of forty and are still neither wives nor mothers. Are they not all practically crazy?

Mentally and physically, woman may be looked upon as the acme, the perfection, the final effort of the creative principle. She is specifically designed for the production and rearing of new members of the human family. Her instincts lead her unerringly and with a power which cannot be opposed in that direction. If she does oppose, the result is physicial and mental disaster; the beneficent purposes of her creation are thwarted, her natural development turned awry, the hopes and objects of her existence blasted, and the sorry result is a warped, imperfect, ruined creature. "Give me children or I die," is the cry—not of one despairing wife still childless, but of every childless member of the sex.

In *The Naulakha*, Kipling shows his wonderful insight. The young American co-ed goes from the University to India, to benefit and reform that portion of her sex. For a time she succeeds measurably, but suddenly finds her clinic deserted by the women she has been treating. Bewildered by the unexpected blow, she resorts to her patroness who tells her flatly the trouble: How can she, who is neither wife nor mother, possibly expect to comprehend or possess the confidence of her own sex? She is only an imperfect, undeveloped woman after all; and as such, cannot receive their confidence.

He is but a vulgar brute who would degrade this instinct of woman toward maternity into the viler cravings for physical gratification.

The problem of life is rightly to adjust the prose to the poetry; the sordid to the spiritual; the common and selfish to the high and beneficent, forgetting not that these last are incomparably the most precious. —George R. Peck.

THE EFFECT OF DISPENSING UPON THE CONDUCT OF THE PHYSICIAN'S CASES*

The third question asked by Dr. Fussell, in his article upon "Dispensing vs. Prescribing" in the *J. A. M. A.*, is, "What effect does dispensing have on the manner in which the physician conducts his cases?"

As was to be expected, after reading the earlier portions of Dr. Fussell's paper, he again finds nothing but condemnation for dispensing, nothing but approval for prescription writing. While admitting that "we all make mistakes whether we dispense or prescribe" he feels "that dispensing so magnifies the business part of medicine to the detriment of true, careful practice, that this fact alone is a weighty argument against the habit." That the reader may appreciate the full force, or,

*The preceding articles on this general subject were printed in the January and February numbers of CLINICAL MEDICINE. If you haven't read them carefully (as you should) send for the back numbers, which will be furnished for 15 cents each.

rather, lack of force, of Dr. Fussell's argument, let us quote it in full:

"As before stated, the only proper method successfully to practise medicine is to take a history of every case, examine every patient with the greatest care and prescribe accordingly. I am fully aware that simply writing a prescription will not cause any physician to study his patients. I know that it is quite possible for a physician to study his patients and then dispense what he feels to be the proper remedy. Does he do it? And does he continue to do so? The majority of patients in our early years come to us for the relief of some troublesome symptom. They care little whether the physician studies their case or not, so they are relieved. Now, the drug dealt out by the physician himself which will promptly cure a symptom is such a great advertisement to the doctor, who is at once thought to have some peculiarly potent remedy not possessed by others, that it at the same time becomes a pecuniary advantage and a greater danger to him. The next patient who comes with the same symptom, though perhaps from an entirely different cause, will expect the same treatment. It is a brave doctor, indeed, who can tell or will tell his patient that the drug he prescribed for X will not do for him, though he has the same symptom. Likely the same or a similar drug will be prescribed.

"The habit grows until in the vast majority of instances the doctor soon neglects the finer part of his work, he does not examine every patient, he rarely examines the urine, never the blood or sputum, and his very success in obtaining patients and money ruins him as a physician. And this, I believe, is because he dispenses. It is such a troublesome matter to make a proper diagnosis that the physician, by nature chosing that which is pleasant and easy, falls into the habit of really neglecting his patients."

This argument seems to us so transparently unfair, unjust and based upon such utterly unwarranted assumptions that we are tempted to rest our case right here.

What evidence is there that the prescriber will study his patients any more carefully than the physician who dispenses? What evidence is there that the dispenser will seek to "promptly cure a symptom," because it is "such a great advertisement," any more strenuously than the prescriber? What evidence is there that in "the vast majority of cases" the dispensing doctor "soon neglects the finer part of his work?" *There is no evidence of these things*—NOT AN IOTA! This imagined moral and intellectual superiority exists only in the mind of the distinguished author—if really there.

On the other hand, it seems to us perfectly plain that dispensing must prove a stimulus to case-study. Why? Because it increases the opportunities. The dispensing doctor's patients are far more likely to return to him; that, I believe, Dr. Fussell acknowledges. He does not have to stake his chances of success in that particular case on the lucky guess of a single prescription. He can study the case more deliberately, more thoroughly, because, having control of the supply of medicine he can arrange to see the patient at sufficiently frequent intervals.

On the contrary, if the prescriber strikes a happy combination of remedies at the patient's first visit, one which gives the desired relief, there is a strong probability that his patient will not return—to be studied; he will thereafter get his medicine at the drugstore—and then very likely pass the prescription on to his neighbors. While if the "favorite prescription" which the doctor tentatively employs on his patient does *not* prove to be just the thing—then his chances for studying a case end, far too often, with equal abruptness!

We agree with Dr. Fussell in the importance of carefully studying cases. We have urged this again and again. But case-study is not essentially a matter of dispensing or prescribing, except insofar as one gives more opportunity than the other. It depends upon the man—his training, education, industry, ideals. It is even a matter of dollars and cents, for we all

know that study pays—in money as well as in reputation.

Right here we want to interject another thought. Why should the physician's studies be restricted to pathology, bacteriology, nosology and the like, while the importance of pharmacology is pooh-poohed and made little of? Is it not just as essential from the standpoint of the patient—and humanity—that the doctor should not only know his remedies and how to handle them with the maximum of skill and the highest standard of results, as to know the latest theories concerning cryoscopy and opsonins? Not that we decry any of this knowledge—we don't! The physician should know all that it is possible to learn. *But that knowledge should stand first which will help his patients most.*

It seems to us that one of the greatest factors in producing the prevailing therapeutic nihilism is the lack of familiarity of the physician with his tools. The man whose knowledge of drugs is obtained through the intervention of a prescription pad is likely to be about as successful with his remedies as the surgeon would be who endeavored to obtain skill in the use of his instruments by looking at the pictures in a manufacturer's catalogue. That man certainly will use his remedies most successfully who knows their taste, odor, physical and remedial peculiarities; who handles them constantly, always has them at hand for use at a moment's notice, and is prepared to check up their results while he sits at the bedside with a finger on the pulse—instead of frittering away life-saving time, "studying the case" as life flits away—while waiting for his prescription to be filled at the drugstore.

Some years ago the writer was called to see a patient who had been under the attendance of another physician. The patient was taking a mixture believed to contain potassium bromide and digitalis. In spite of previous treatment he had continued to go down hill; so a consultation was asked for at once and a pompous old gentleman, one of the best-known physicians of the state, a "college professor," was called in. I brought out the mixture and commenced to explain what I believed it to be and the result it was having. The old doctor waved it aside with the remark: "Don't bring it to me! I make it a practice never to smell or taste of a single medicine. I don't know one from the other."

This illustrates how some physicians go through the world—in utter ignorance of the remedies which they use. And yet these men claim to be able to treat disease, and naturally enough lay all their failures to the futility of medicine. This old doctor neither knew the taste nor odor of his medicine, nor was able to check up the results which he obtained or failed to obtain through his use of it. How could he? He was a prescriber.

The great need today is for the study of cases—from the standpoint of most successful treatment. The patient who goes to a doctor for relief naturally cannot be expected to enthuse very much over being regarded as a more or less interesting natural-history specimen; to be labeled, classified—and possibly preserved in alcohol for the edification of the millions yet unborn. He suffers, and wants relief. He is diseased and desires cure. His confidence, his affection and his money are given freely to the man who can help him most and help him quickest. That's the whole secret of the success of the dispensing physician. There is no trickiness or dishonesty behind this success, as Dr. Fussell would have us believe. The very growth and permanence of the custom of dispensing shows that it rests upon a substantial basis of common-sense and *practical* scientific study.

It gives results!

UTERO-OVARIAN THERAPY

Modern Eclecticism contributes these suggestions toward a choice among remedies for women's diseases: Aletris: too frequent menses, pains like labor, pelvic weakness, at times colicky. Viburnum: threatened abortion, dysmenorrhea, pelvic weight and bearing down with cramps. Ergotin: uter-

ine hemorrhagic conditions and to excite contractions in labor. Caulophyllin: chronic uterine disease and dysmenorrhea. Helonin: pain and backache, leucorrhea, atony of reproductive organs, dragging in lower bowels. Gelseminine: amenorrhea from cold; alone or with anemonin. Macrotin: muscle pains, uterine dragging, ovarian pains, irregular, scanty menses. Senecin: subinvolution, chronic enlargement, leucorrhea, pelvic weight, dragging and soreness. Mitchella: atony, tardy menstruation, uneasy dragging in pelvis and soreness. Anemonin: for nervous women with genito-urinary wrongs, weakness, despondency, fear, amenorrhea from cold.

If readers try these suggestions we would like to hear the results.

Henry Ward Beecher said that there are just two kinds of people—the "I Wills" and the "I Can'ts." The "I Wills" go ahead and do things, and the "I Can'ts" sit around and criticise them.

THE ORIGINAL JOHN

A curious and interesting indication of the rising alkaloidal tide is the frequency with which we read in letters from the profession of claims for the writer's being the original "alkaloidist" of his neighborhood—the first to introduce the active principles into his practice. And justly so; for any man has a right to feel elated that he was the first to recognize the truths that later win general acceptance as this has done.

Fifteen years ago the writer perpetrated a "novel," of the "Looking Backward" type, which he wisely refrained from publishing. In it he however predicted the close drawing together of the Anglo-Saxons, their alliance with Japan, the rise of the latter, and many other things that have since been realized; and we can not look over the work without a sense of big-headedness as we see how much of our prophecy Time has verified.

Few educated physicians but will acknowledge that active-principle therapeutics is scientifically correct, and the coming system; but too many looked on it as something for the far distant future, instead of being an absolute necessity for the present, a living, growing fact! All honor to those who did see the present importance of the matter, and lent a vigorous hand to its instant accomplishment. It is the West, the great, vital, vigorous young West that has led in this reform. The older a state, the greater seems to be the importance of vested interests, the more cautiously a reform must be advanced to avoid incurring enmities that will wreck it. But in the newer communities people feel that as they are building they might just as well do it in the right way from the foundation, and there are no very firmly seated interests to be first uprooted. Faith does arise in the East, but it is in the West it attains its full development, and the further in that direction it travels, like a rolling snowball, the larger it grows.

All honor to the pioneers, the men who dared to do something different from the masses and the elders, the traditions and the customs of their fellows.

THE INTESTINAL BACTERIA

There are a very few men writing for the medical press whose articles should be watched for, read and considered with care. Among these we place Dr. E. Palier, whose paper on the Intestinal Bacteria and how they acquire toxicity appears in the *Medical Record*, of January 5.

Many bacilli and cocci are constantly present in the intestines, the colon bacillus especially. When the gastric juice is normal, or HCl in excess, the only microbes found in the feces were b. coli and cocci, sometimes an organism resembling *Oidium lactis* but staining differently. Many species can not grow together in the same medium, the fast growing kinds destroying the slower growing.

The colon bacillus sometimes is virulent, at other times not. Why? Is the form found to be virulent in diarrheas another bacillus, and is it the cause of the diarrhea, or does the latter induce virulence?

In the stomachs, intestines and feces of mice, Palier has always found colon bacilli

and cocci; these animals having little or no HCl in their stomachs. These organisms from mouse feces, cultivated on agar and injected intraperitoneally into other mice, produced no effect at all; when coli bacilli from a dead mouse were thus employed the injected mice died within twelve hours. But fresh cultures from this old one showed decidedly less virulence. The suggestion is made that to acquire virulence the ordinary materials in feces are insufficient, but are supplied by dead tissues. To test this, fresh beef was digested with HCl, and cultures of non-virulent b. coli and cocci from a mouse's feces, proved non-virulent, were added. These developed virulence. Hence Palier arrives at the conclusions, that a flesh medium enhances the virulence of the coli bacilli, and that in agar older cultures are on the whole more virulent than fresh ones.

These are confirmed by observations on human beings, suffering with intestinal disorders, b. coli cultures from their feces proving fatal to mice. Once the b. coli have become virulent they may do harm to the intestinal tissues; and when the latter have been weakened by disease or trauma the b. coli may react with them as with dead tissues. In accordance with this hypothesis he attributes the freedom from appendicitis noted by Senn among the blacks of eastern Africa, to their vegetable diet. A diet of milk and vegetables should be protective against appendicitis and affections of the biliary passages, all of which have been attributed to the colon bacillus. The extra-cellular toxin secreted by colon bacilli is also responsible for an intestinal autointoxication.

As to the cocci, Palier seconds Pageand's doubts as to their ability to cause disease, at all. They do not acquire virulence in passing through meat. They do not, if injected alone, kill mice. But while those derived from human feces are innocuous, those from human sputa are somewhat virulent, and this is enhanced by passage through mice. Virulent cocci occasionally found in appendicitis have probably gained access through the blood, not by the feces. This may account for the epidemics described by Galubow and others. May not mice, then, be the cause of attacks of appendicitis, as well as of pneumonia, and other virulent coccus infections?

We may sum up the interesting observations and deductions of Palier, by concluding that while the matter is rather suggestive than conclusively demonstrated, we are not wrong in getting rid of the mouse, as a useless and possibly perilous member of the household. So with the fly, the bedbug and other pests—they are useless and possibly injurious, and health as well as comfort are enhanced by their destruction and exclusion.

How dear to our heart is the cash on subscription,
When the generous subscriber presents it to view;
But the man who won't pay we refrain from description,
For perhaps, gentle reader, that man may be you.

THE NEW ANESTHETIC

It has been a long time since anything has aroused the interest in surgical circles which has followed the appearance of the hyoscine-morphine-cactin anesthesia. Some time ago the method of securing anesthesia for major surgical operations by the hypodermic administration of morphine and scopolamine was introduced. Several accidents, which followed, caused the method to be looked upon with suspicion, and this was intensified by the variable nature of the effects. After a careful investigation of the various substances belonging to the mydriatic group, Dr. W. C. Abbott was able, he believed, to trace the variable effects obtained by different observers to the presence or absence of various impurities often contaminating the scopolamine. After many trials he finally succeeded in obtaining a hyoscine chemically pure, without a trace of contaminating alkaloids. Wide-spread clinical trials resulted in the preparation of this alkaloid with chemically pure morphine; to this was added cactin to strengthen the heart and guard against any possible excess of depression. As thus per-

fected, these tablets were presented to the profession.

For major operations one tablet is administered hypodermically, followed by another in two hours, and a third three hours later. The result is an anesthesia of ideal conditions, the patient being at the same time in such a state that he may be roused if necessary. The following case may illustrate this:

A distinguished surgeon of St. Louis, operating at a public clinic before the members of a medical society, completed the operation successfully. The attendants wheeled in the ward carriage, and the surgeon, speaking sharply to the patient, told him to roll over on to the carriage, which he did. Just then a rectal specialist present asked if the method could be employed in rectal operations. The operator replied that he would show him. He told the patient to roll back on the operating table, and then and there dilated the anal sphincter, the patient giving no evidence whatever of suffering. He was then told to get upon the carriage, which he did, and was wheeled out.

It is well understood that the sphincter ani is about the last part of the body to come under the influence of an anesthetic. In fact, one of the most effectual means of resuscitating a patient overcome by anesthesia, is to insert the fingers and dilate the sphincter, so that a more complete illustration of the perfection of this anesthetic could not be imagined than this one just narrated.

One feature of the anesthetic produced is a remarkable slowing of the respiration. In one case witnessed by the writer, respiration after the third hypodermic fell to six per minute, frightening everybody excepting the operator, who fully comprehended the situation, and proceeded in the most leisurely manner with his work, refusing to permit the injection of strychnine, etc., which was urged by the frightened assistants.

The anesthesia lasts four hours, permitting the operator abundance of time for the most critical, delicate and prolonged operations. The method does away with the need of a special anesthetizer, and enables the surgeon practically to operate without assistance, except the nurses who may be needed to hold retractors, etc. It thus simplifies the task of operating at the patient's home, or under conditions presented by accidents. There is ordinarily no vomiting, no nausea, no irritation of the bronchi nor of the kidneys. Can anything be more ideal.

Wherever we meet a knot of surgeons, we invariably find them discussing this method, and one at least of them enthusiastic over it. These tablets are being largely employed for the relieving of such pains as the atrocious agony of renal and hepatic colics, and wherever pain is so marked a symptom as to constitute its relief the leading indication. It is of course not to be inferred that a search for the cause of the pain and its removal are to be neglected, but we all know how frequently we are compelled to give our first thought to the question of relief. Here this combination acts with a certainty, power and safety, which has perhaps no parallel in medicine. Take for instance a case of strangulated hernia—the complete relief ensuing upon the absolute relaxation following these injections will generally relieve the difficulty and render operation unnecessary.

The tablets are also being widely applied to relieve the pangs of child-birth. So far as the mother is concerned, the results thus far reported have been, without exception, excellent. Physicians tell us of the mother lifting up her head to watch the painless birth of her child. A few cases have been reported, however, in which the child when born was cyanotic. Up to the present no fatal case has been reported. It is assumed that possibly this may be due to the drugs injected, but if so, the cases do not present the typical symptoms of narcotism. In every case thus far reported, the child has recovered within an hour. Neither contraction of the pupils nor any other morphine symptoms have been reported. We could scarcely conceive of an

instance of morphine narcotism in a newborn infant showing complete recovery within an hour. However, the occurrence of such a phenomenon, while experimenting with a new remedy, bespeaks caution on our part until the exact action and degree of danger have been ascertained.

Material well-being, indispensable though it is, can never be anything but the foundation of true national greatness and happiness. If we build nothing upon this foundation then our national life will be as meaningless and empty as a house where only the foundation has been laid.—Theodore Roosevelt.

GET THE PRACTICE OF THE FAMILY—ALL OF IT

It is said that Chinese physicians are paid to keep people well, and that it is considered a disgrace—a serious matter—if one of their charges becomes ill.

This attitude has much to commend it. Why should not the physician be charged with the duty of looking after everything that concerns the health of his clients? It is worth more, vastly more, to a person to be saved from a long, expensive and exhausting illness, which takes him away from business and renders him unfit for work, possibly for months, than to be doctored and nursed with the most assiduous care, even if he is brought triumphantly through at last. Even Willie will prefer to go regularly to school rather than lie in bed for ten days or weeks with scarlet fever—with the chance of deafness or other permanent disability to be carried through life as a result of it.

If this matter were presented right I believe you would be surprised at the number who would jump at the chance of engaging you at a regular annual sum to look after their families; attend to their minor ailments, and prevent the more dangerous ones. How many a simple cold becomes a pneumonia, simply because it is neglected in its inception from false ideas of economizing on the doctor's bill! How often a little attention to the throat, or to the bowels, or to some other part of the body, would nip in the bud, "jugulate" if you please, some commencing serious malady!

Talk it up! Explain the economy of it to some of your best families and you'll be surprised at the number who will jump at the chance to pay you $25 to $100 a year each to look after them. There's money in it for them as well as for you. They can afford to pay twice as much to be kept well as it costs them to get well and they'll see it if you present the matter right. That's money for you. That's modern. That's "up to date."

Now listen, Brother. The trouble with our profession is not so much overcrowding as it is a failure to grasp the opportunities that lie all around us. This is one of them. The late P. D. Armour paid his family physician $5,000 a year—so we have been told—just to keep him in good working trim. Can't you find a few who will pay you $25 to $100 each for the same purpose? Of course you can!

Don't keep on bemoaning the past, kicking about the present and harboring pessimistic views of the future. Wake up! Look alive! *There's an acre of diamonds all about you.* Clean out, clean up and keep clean. *Work!* Don't let the other fellow, the prescribing-and prescription-peddling druggist, or the "old woman of the town," skin you.

THE STREPTOCOCCI

The *Lancet* for November 24, contains the Horace Dobell Lecture on the Evolution of the Streptococci, delivered by F. W. Andrewes, pathologist of St. Bartholomew's. There is so much in this fine address that is of vital interest to us as clinicians that we will present a few excerpts, giving an idea of its scope and showing the views on which the distinguished speaker asks us to base our practice. If we would intelligently intervene for the benefit of our patients we must be able to recognize the fact of abnormalities present and as far as possible their nature and tendencies. The clinician who yawns over "theoretic" and abstruse articles will never be more than a

blind bungler at practice. Our greatest need today is more knowledge of the physiologic and pathologic processes to which we venture to affix a system of remedies. We can not afford to neglect such contributions as the one under discussion.

"The healthy human mouth contains a fluid that has from ten to a hundred millions of streptococci to the cubic centimeter. (Gordon).

"In normal human feces streptococci were found by Hoffman to the number of a billion per gram.

"Andrewes found in horse-dung streptococci far exceeding other organisms, to the number of ten millions per gram.

"It is probable that the conditions afforded by the alimentary canal are peculiarly favorable to the streptococci.

"To all intents the streptococci are at present exclusively attached to the animal body, and in particular to the alimentary canal.

"Above most other bacteria the streptococci have succeeded in the struggle for existence by their ability to adapt themselves to the conditions of life in the alimentary canal.

"I have revived old dried cultures of intestinal streptococci after they had lain uncared for in the incubator for nine months.

"Difficult to explain is the resistance of streptococci to certain chemical poisons, such as phenol, 1 to 1000.

"Gordon found 300 strains of streptococci in normal saliva, among them 48 chemical varieties.

"Houston differentiated 300 strains of streptococci in normal human feces, among them 40 chemical varieties.

"Fat globules are taken up by the intestinal lymphatics, and the much more minute bacteria must be taken up also. Most are intercepted by the glands, but many must escape them.

"In the higher vertebrates phagocytosis involves preliminary chemical action by opsonins as shown by Wright.

"Apart from phagocytosis the body appears to be able to form cytolytic substances that can disintegrate bacteria by purely chemical means.

"In face of all these defensive agencies no simple saprophyte has much chance of escape should it gain access to the blood or tissues, while the bodily activities are in full vigor.

"Gordon's metabolic tests enable us to sort out the streptococci met in disease with a precision hitherto impossible.

"We have again and again isolated from the blood or diseased tissues streptococci in all respects identical with those found in the healthy alimentary canal.

"Certain common streptococci of the alimentary canal have become weak facultative parasites which can not cause suppuration or attack healthy tissues, but multiply in the blood during the last hours of life and attack weak spots, establishing chronic inflammations, which may be suppurative.

"Some, as the pyogenes and pneumococcus, have developed actively aggressive powers, manufacturing hemolysins and deadly toxins.

"Defensive powers develop *pari passu*, hyperemia and fever, antitoxins and antihemolysins, an infectious attack being a process of extreme complexity.

"The qualities that enable a swarm to succeed in effecting a lodgment in the animal tissues are not transmitted to progeny, for whether the battle goes to the animal or to the invaders the result is the same, and the death of the body attacked carries with it that of the invaders."

Thus, in this fine address we are brought face to face with the hypothesis which is becoming prevalent, that hyperemia and fever are vital reactions against the disease, and preservative, therefore to be encouraged. How far is this view justified? Were it literally true, we should, apparently, find evidences in our clinical studies of the beneficial nature of these processes. The higher the fever, the more quickly the attack should end, and the more surely should it be decided for the body and against the invaders. Is this true?

On the other hand, if fever be an indication of the activity of the morbid process and the gravity of the disease, if high and continued fever is indicative of graver lesions of the tissues, in direct proportion, if a certain height is almost necessarily fatal to the host, not the foe, if low fever is as a rule synonymous with mild attacks and recovery, high fever with grave attacks and peril to life, we must ask if this view can possibly be correct?

Moreover, it is always dangerous to base our views as to pathology on a solitary element of the malady, ignoring other possibilities. What is there to oppose the view that the fever excited by a primary invasion is apt to arouse into malignancy, to develop dangerous activities, in other microörganisms, so that the malady soon becomes a complicated one and not a simple unimicrobic invasion?

The temperatures quoted by Andrewes as destructive to bacteria—over 50° C., are never approached in any human disease—death would result from anything like an approximation to them. Nor is there any evidence in this presentation indicating that any bacteria are inhibited by any temperature the human brain can withstand; while on the other hand there is plenty of reason for believing that bacterial activities are vastly increased by febrile temperatures.

The important point of this address is that which demonstrates the part played by the innumerable microorganisms always inhabiting the alimentary canal, at times taking on malignancy, and always ready to attack a weak or poorly defended point. Every new investigation goes to confirm our original claims as to the vast importance of the alimentary canal and its inhabitants, and emphasizes the wisdom of keeping down its flora and fauna, and preventing such delays in the evacuation of feces as would permit in them the development of dangerous principles.

Here permit us to touch upon a statement of Hesse, that deserves comment: He made several injections of various substances into the colon, and on the results based his dictum that the large intestine does not permit absorption. The fallacy lies in the reasoning from particulars to generals. That the substances injected were not absorbed does not prove that no substances can be absorbed. Moreover, if his subjects were in a state of health as to the colonic tissues, it does not prove that in abnormal conditions of these tissues no absorption of any substances whatever can occur. Such illogical jumping at unwarranted conclusions constitutes the most serious obstacle to the advance of medicine today.

Granted all that can be claimed for lack of time, for the food and clothing to be bought, and the debts to be paid, the truth remains—and I beg you to remember it—the person who allows his mental and spiritual nature to stagnate and decay does so not for want of time, but for want of inclination.—George R. Peck.

MANY RIGHT REMEDIES VS. FEW "HIT OR MISS"

Holmes, who said many witty things also uttered a few silly ones; and among the latter he is credited with the remark that "when he began to practise he had nineteen remedies for one disease, and ended by having nineteen diseases for each remedy." Very fetching style of talk, but scarcely the thing as an argument in a matter of science. Holmes was a surgeon and a teacher of anatomy, in which capacities he was eminent. But what did he do or know to demonstrate any claim to being an authority in therapeutics? The only therapeutic maxim from him that seems to have survived is his laudation of Himrod's asthma cure, as the "best thing he knew for that malady." Even the *claque* that stood about Holmes, ready to begin applauding the moment he opened his mouth, gagged over that. Looking at it calmly we should say that it gave Holmes' measure, as a very poor therapeutist indeed.

There are certain pathologic conditions that appear in a vast number of cases, of many different diseases. Not without reason is the alimentary canal known as the

primæ viæ. We find that certain disorders of this tract are reproduced in so many diseases, that we may be pardoned for making attention to the matter one of the routine duties of the physician in all his work. Perturbations of the vasomotors are manifested in all febrile maladies, while excess or depression of the vital faculties and organs comprise the bulk of the phenomena of disease. For these reasons we justly find a certain very limited group of remedies so constantly indicated, that their use also becomes a routine. Possibly we may summarize the matter by estimating that in nine-tenths of our cases, a group of a dozen remedies will meet the needs. But to stop here is not modern scientific therapy.

We may learn to treat successfully nine-tenths of our cases, the commoner sort, but our really fine work lies in diagnosticating and treating the remaining tenth of less common ones. We may learn to use a dozen remedies for much of our practice, but therapeutic skill lies in knowing how to use the rarely indicated agents in the unusual cases.

We have in our cases about two hundred different remedies. Many of these we do not use once in a month, perhaps in six months or a year of busy practice; but we are liable to need any one of them any day of that year. We even find these too few, and are occasionally brought face to face with a pathologic condition definite and recognizable, but for which no remedy has yet been differentiated. We have certain groups of allied remedies, which present definite shades of action, and these may be suited to similar shades of differences in the clinical picture presented by disease. The profession has contented itself with one of the group and neglected to study the rest. As the revival of therapeutics we have been advocating, materializes, we shall no doubt see these groups submitted to study under modern conditions of accuracy, and a new materia medica arise which will render practice a matter of true scientific precision. But—it suits some people to put us down as men who seek to sell goods regardless. And yet, "there *are* others."

WOMAN SUSTAINS, GUIDES, AND CONTROLS THE WORLD

Though we don't approve of a great deal that goes into the Hearst newspapers, we admit—and gladly—that some of the editorials are strong—go right to the very heart of things. This which follows is one of them:

Of all events here on earth, the greatest is the birth of a baby. Great battles are fought, won and lost. Nations and religions rise and fall. Great cities flourish today, and tomorrow the sand lies heavy over them. And of all these events the eternal Niagara of new babies is the first and essential foundation.

He knows little of real life, its greatest happiness, deepest devotion, intensest suffering, who has never witnessed the arrival of a new human being in this life of progress and struggle.

There lies the new baby at last, its black face gradually turning pink, its first gasping breaths changing the color of its blood, its tiny fists opening and closing—reaching out for nourishment already, its face tying itself into the first philosophical, cosmos-interrogating knot. Its feet turn inward and its legs are crooked. Its head is so shapeless as to discourage any one but a mother; it has three years of gurgling, ten years of childhood, ten years of foolishness, ten years of vanity—and possibly a few years of real usefulness ahead of it.

Some one must be patient, hopeful, interested, proud, never discouraged, always devoted, through all these years.

That "some one," the "mother," lies there weak and white on the bed.

Her forehead and all her body are wet with agony—but she thinks no longer of that.

She has heard her baby's first cry, and whether it be her first or her tenth the feeling is the same. Her feeble outstretched arms and her hollow, loving eyes are turned toward the helpless little creature.

Those arms and that love will never desert it as long as the mother shall live.

The mother's weak hand supports the heavy, dull, baby head and guides it to its rest on her breast.

And that hand which supports the head of the new-born baby, the mother's hand, *supports the civilization* of the world.

Was it a doctor who wrote this fine tribute to motherhood? Who else can appreciate, as this writer plainly enough does, the agony of the act of birth, the unfolding of the little life, the divine beauty and full significance of motherhood? What a responsibility, a very priesthood, rests upon

the shoulders of the physician who presides at this altar of Life? The happiness of a family, the history of a nation may depend upon his ability to grasp the situation and deal with the emergency, which at any time, may present itself. Doctor, are you ready for it?

SPENDING YOUR MONEY: SPEND IT RIGHT

Have you ever stopped to think how advertisers in CLINICAL MEDICINE get their money back? A page advertisement for a year costs $600, and this with many advertisers is only a part, possibly a very small part of their advertising appropriation. Probably not one of these advertisers expects to get direct returns which will pay these bills. But they keep right on advertising. Why? Because they want you to *try* their products, hoping that thus having established confidence in the superior merit of their goods you will continue to use them. In other words merit must stand behind advertising or it will amount to little or nothing in the long run.

It pays to deal with responsible firms, with originators, with people who, knowing they have "a good thing," are not afraid to say so and go into the open to fight for the doctor's patronage instead of trying to sneak a substitute or an imitation of something originated by others into the doctor's office by the back-door route.

The advertiser has a reputation to sustain; in order to advertise successfully he must have the means to produce a good product and produce it cheaply; must, in other words, be a responsible business man. Can you afford to deal with the irresponsibles—to purchase goods from men who are mere parasites, living off the reputations created by others by marketing inferior substitutes? Don't do it, doctor, it's a dangerous experiment. It don't pay. Go to the men who have ideas of their own and are willing to stake money and reputation on these ideas. They advertise.

Great care is exercised in the admission of advertisers to space in CLINICAL MEDICINE. As a rule we believe you will find them clean and reliable. Patronize them. Try their products. Write us how they use you. And beware of the irresponsible and conscienceless substitutor as you would of the devil himself.

Properly speaking, everything depends upon a man's intentions. Where these exist thoughts will likewise appear; and as the intentions are, so are the thoughts.—Goethe.

THE APRIL NUMBER OF CLINICAL MEDICINE

The April number of CLINICAL MEDICINE will be peculiarly rich in good things. We can mention but a few of them, though we wish especially to call attention to an article by Dr. Thomas E. Moss, a surgeon in the Philippine Constabulary, who writes upon "The Calinga." This article will be profusely illustrated and will give a vivid picture of the exciting life of one of "our boys" among the wild mountainous tribes in "the Islands."

The interesting series on "Neurasthenia," written by Dr. Woodbridge Hall Birchmore, and temporarily suspended in the March issue, to make room for another article by this brilliant medical writer, will be resumed. Dr. Robert Cook Prewitt of St. Louis contributes an extremely interesting and practical article upon "The Scientific Treatment of Alcoholism;" Dr. Dexter Buck of La Porte, Indiana, writes upon "The Correlation of Pharmacotherapy and Physicotherapy;" Dr. S. E. Griggs of Seattle has "Just a Reminder," and there will be scores of other good articles, including epoch-making contributions by Drs. Abbott and Waugh.

Don't fail to read this number. If you are not a subscriber better send in your dollar and a half and read the magazine for the entire year. We are making our plans for a series of numbers which will be "top-notchers" in every respect—and even then we do not propose to stop growing! We want to urge again that you coöperate with us by sending in your reports. Give us the best that's in you!

ALKALOIDAL MEDICATION

An answer to some objections and a statement of some of its advantages. Read by request before the East Side General Practitioners' Society

By C. F. GILLIAM, M. D., Columbus, Ohio

IN responding to the invitation of your program committee to write a paper on alkaloidal medication I do so with some reluctance, as I have already read papers embracing some phases of this question, both before this society and the Columbus Academy of Medicine. If the invitation is based upon the impression that I am a man of but one idea, it is not at all flattering, while if it implies that you regard me as a specialist in this line I can only thank you for the compliment conveyed while disclaiming any feeling of having merited it. I fully realize my limitations in dealing with the subject, and am also hampered by having already presented the main features of it in former papers.

As a matter of fact, I do not confine myself strictly to active-principle therapy by any means, but am firmly grounded in the belief that the system is correct in principle and am gradually extending my use of the active principles of medicine from month to month. One cannot spring into a full panoplied alkaloidist right at once, as it requires that one should study very carefully the actions of the various medicines in order to use them with that fine sense of discrimination which is a necessary requisite to success. Having arrived at the age that naturally makes for conservatism, it was, and is, hard for me to give up entirely the habit of over twenty years' practice with the galenical tinctures and extracts.

The Alkaloids Definite in Strength and Exact in Dosage

The special contention of those who are advocates of active-principle medication is, that the active principles are superior to the old-style tinctures and extracts because they represent a definite standard of strength, and consequently you know the exact dosage as well as the medicine which is being used. A tincture or extract varies in strength according to the character of the drugs used in its making. This character is influenced by climate, soil, the season in which the crude drugs are gathered and the freshness of the drugs when used, as well as in their separation from extraneous matters or impurities. Not only that, but it is a well-known fact that many plants have a number of active principles, some of which are antagonistic to each other. Nor is this all, for in different supplies of these drugs, the relative ratio of the various active principles is not the same, some particular principle predominating in much larger proportion in one supply than in another; this variation in strength reading as high

as 200 or 300 per cent in different samples analyzed at the same time and under precisely the same methods.

It is true that some of the leading pharmaceutical houses claim to standardize their tinctures and fluid extracts by assaying the plants for their supposed most active principles, and incorporating a definite amount of this active principle in their preparations. Even if this be true it does not give you any idea of the strength of other active principles contained in them, whose quantities are not determined by assays; consequently you have no means of knowing how much of a predominance the assayed principle may have over the antagonistic principles not assayed.

Even conceding that these houses do honestly standardize their preparations for a certain active principle so that they represent a definite amount of the alkaloid, resinoid or glucoside, is this not a confession that the virtue of the drug as a medicine resides in the active principle? If such be the case, then why not use the active principle direct, instead of having to depend upon the uncertain representatives of the innumerable drug houses of the country, and the difference in strength which occurs by evaporation and other causes?

The Objection of Interested Motives

Alkaloidal methods, though having originated with Burggraeve, of France, many years ago, has only made itself felt as a distinctive system of medicine in this country in the past ten years, through the untiring efforts of Drs. Abbott and Waugh of the ALKALOIDAL CLINIC, or more recently of THE AMERICAN JOURNAL OF CLINICAL MEDICINE. It has been claimed by some that their interest is dictated purely by selfish or commercial motives. Taking this for granted—and no doubt there is some truth in it—if the purity of the goods they furnish, or the arguments which they address to your reason do not appeal to you, then I would advise you to reject them by all means.

Conceding, however, that these gentlemen do have some selfish interests at stake, which may color their representations, we have to acknowledge that they have an honorable standing in our profession and it would seem reasonable to suppose that men occupying such a position, would be entitled to at least as much credence as we give to the pharmaceutical houses entirely outside the pale of the profession, who do not even claim to be actuated by other than purely commercial motives.

The Charge of Exaggeration

I have introduced this phase of the question, simply because some of my professional friends who are teachers in medical schools have been frank in their denunciation of the alkaloidal system, though equally frank in saying they had never studied the principles involved. They ranked all alkaloidists simply as cranks, faddists, ignoramuses, because they claimed to accomplish so much that it was absurd on the face of it. Well, I grant you that there are many such in the ranks of the alkaloidists, as there are in the followers of any system, but there are also many sober-minded, intelligent men who have taken up the practice in a tentative and somewhat skeptical manner, who, after a little experience become almost ashamed to acknowledge how much of a hold it has on them and how much more optimistic they have become in the use of medicines.

I began investigating at the insistence of my brother, Dr. E. L. Gilliam, of West Virginia, since dead, and listened to his representations in regard to the little granules with a sort of pitying condescension, and with only the patience that courtesy required. The first two articles I wrote to the ALKALOIDAL CLINIC, which was during the first year I began using the alkaloids, were in ridicule of the absurd claims that some of the correspondents made for the alkaloids. I still read articles in that journal that indicate a lack of truth or knowledge, but many things that I used to look askance at now seem to me entirely reasonable.

There used to be no greater scoffer than myself against the claims made for the

jugulation or abortion of such diseases as typhoid fever and pneumonia. In the first book I ever wrote I devoted a chapter to holding up to ridicule such claims, while since beginning the use of the alkaloids I have become a firm believer in the theory.

Do Not Use Active Principles Exclusively

Returning to the subject matter under discussion I may say that the alkalometrists do not confine themselves to the active principles exclusively, as there are quite a number of medicines from which they have been unable to isolate the active principles, and they furthermore make use of every definite chemical compound which observation and experience have shown to have therapeutic virtue, being in that respect eclectic in the true sense of the term. But it is not alone in the use of the active principles that the alkaloidist differs from the ordinary physician, it is in the *way* they are used. Experience has demonstrated that a better therapeutic effect is secured in many cases by very small doses, frequently repeated so as to keep the system constantly under the gentle influence of the medicine, rather than to shock the system by large doses, the effects of which are then allowed to wear off before being repeated, the shock being repeated with the dose.

The active principles are of course powerful and in addition to the virtue which lies in small, frequently repeated doses, you are also on the absolutely safe side, regardless of the idiosyncrasies of the patients.

The "Creed" of the Active-Principle Men

The active-principle leaders have formulated in a few words what might be termed their creed, this is: "Clean out, clean up and keep clean;" and "just dose enough." Get the eliminators at work, the bowels, kidneys and skin, and after you have the system thoroughly cleansed, keep it so by the use of salines and intestinal antiseptics.

Should the small doses not seem to exert a curative effect, then push them to the full physiological effect of the drug. Should you then, after a reasonable time, fail in securing the effect desired it would indicate that you are not using the right drug, or that the patient is beyond the help of medicine.

After the tolerance of the patient to a particular drug has been ascertained, the dose can be regulated as to size and intervals which will keep up the effect desired.

Learn to Give "Dose Enough."

In a number of instances I have had medical friends give a tentative, half-hearted trial to the alkaloids and then report they had perceived no effect whatever. They would say: "I put twenty granules of aconitine in twenty teaspoonfuls of water and ordered a teaspoonful every hour or two, and noticed no change in the patient's condition." So have I, but when I gave them fifty granules and ordered a dose every ten or fifteen minutes till sweating occurred, the fever abated, or there was a marked slowing of the pulse or tingling of the extremities, I never failed to get effect.

I often give four or five times the minimum dose incorporated in a granule, in other words, I give to effect, or "dose enough." The effect is as sure to come as the day to follow the night, if dose enough is given; whether it will be a curative effect is largely dependent upon the condition of the patient, and as to whether the right drug has been used.

How It Makes Better Therapists

A good alkaloidist is of necessity a better therapist than the ordinary physician; because of the fact that in giving his medicines to effect he studies their action more carefully than the average physician and consequently uses more discrimination in selecting the ones which seem to be indicated, giving one definite thing, usually, at a time he is able to note with more exactitude the results accomplished. The ordinary physician prescribes usually a mixture of from three to a dozen different ingredients and he does not know what physiological effect to look for; and if he does secure good results is uncertain whether they are due to the predominance of some particular

ingredient or to the happy combination of them all. If he does not get good results he cannot tell how far to push his remedy, for no one knows what physiological effect to look for in such a conglomeration. It is true he might say, "Give it until you poison the patient," but not knowing the symptoms of poisoning from such a mixture the patient might be beyond aid before they are discovered.

Disadvantages of the Frequent Dose.

And this brings me to the strongest objections which I have heard urged against active-principle medication, that is, that if you give your medicines to effect it will require the attendance of the physician constantly at the bedside, or that of a trained nurse who has sufficient intelligence to note these effects. In addition to this the frequent dosage would be very worrying to the patient.

At the first glance these objections seem to be well taken, but I have not found them so in actual practice, only in very exceptional instances. To dispose of the last mentioned objection first I have found that the ease of administration of a very small granule or a teaspoonful of a tasteless mixture more than compensates for the frequency of repetition. Three patients out of four will take them in preference to the nauseous or disagreeable tasting mixtures, at the longer intervals.

As to the first objection, you will be surprised to learn how easy it is to make the attendants understand when to cease or lengthen the intervals between the doses when using the more powerful drugs.

Some Signs of Drug Sufficiency

For instance, with aconitine, when sweating occurs or marked lowering of pulse, extend the intervals, and cease when there is tingling of lips or extremities.

With strychnine increased nervousness and headache call for longer intervals between doses, while contraction of the fingers or stiffness of the muscles of the neck for its cessation.

With gelseminine dizziness and languor for longer intervals, while disturbance of vision, numbness of upper lip or drooping of the eyelids for its discontinuance.

With digitalin or veratrine as soon as the pulse is lowered to normal or below, or when the patient perspires, then lengthen the intervals, and when marked nausea or vomiting occurs cease giving.

With pilocarpine when salivation occurs or sweating begins then lengthen the intervals, and if signs of depression become marked or the patient greatly nauseated cease giving the drug.

With atropine marked dryness of the throat and mouth and dilation of the pupils call for longer intervals, while intense flushing of the skin, marked disturbance of vision or slight delirium are indications for its cessation.

Nitroglycerin or glonoin can be given until spasm is relaxed, the temples throb painfully, the surface of the skin flushed or until there is a peculiarly choking cough. Sometimes the patient will lapse into total unconsciousness or "faint away," as the expression is. I have had this occur a number of times, evidently due to the very rapid lowering of blood pressure, but in every instance they quickly rallied. As it is a drug that is very evanescent in its effects and acts more quickly dissolved on the back of the tongue than any other way, it should always be given to effect, until the more permanent action of atropine or the opiates which supplement it can be secured.

Danger From Idiosyncrasies Eliminated

You are all familiar with morphine and the various derivatives of opium. So there is no use going into this. I have taken occasion to mention these more powerful drugs, because many professional men are afraid to use them to effect, and well they may be, if they happen to prescribe them in the ordinary dosage to patients who owing to some idiosyncrasies are specially susceptible to them. But when used in minimum doses, frequently repeated, you avoid all danger of overwhelming the patient. In some cases this makes for delay, but on an average you get the results de-

sired before you would feel justified in repeating the larger doses if the first one should have proved ineffective. I do not know that I have added any to your knowledge, or even succeeded in interesting you in what I have said, but I have endeavored to present the matter in an understandable light to the average physician who has not given active-principle medication any special thought or attention, and in pursuance of that plan have tried to avoid any technical or scientific verbiage.

The Rifle Shot vs. The Shotgun

The difference between alkaloidal medication and the ordinary galenical mixtures has been likened to the difference between a rifle and a shotgun; one is precise and direct, the other diffuse and scattered in its action. The good marksman will always take the precision of the rifle from preference; the poor or indifferent marksman will choose the shotgun, hoping that with the scattering shot he may possibly bring down his game.

I think it will be but a few years till physicians will be differentiated in the same way, that is those who use medicines of precise, definite strength and action, and those who adhere to the old galenical shotgun mixtures and trust to luck for results. Use judgment and discrimination in the selection of your ammunition; you would not use the same charge of ammunition to kill a bear you would to kill a sparrow. Study your patient as well as the disease, and make the medicine and the dose fit the patient.

If the optimistic alkaloidists had done nothing but aid in stemming the current of therapeutic nihilism that promised a while back to flood the country they would be entitled to the thanks of humanity.

The almost universal use now of the better known alkaloids, quinine, strychnine, morphine, cocaine, etc., in preference to the crude drugs or galenical tinctures, presages in my opinion the dominance of all the active principles, as we become more familiar with them.

The Great Object of Medicine to Cure

Some men start out in their careers to make sufficient money to enjoy the comforts of life, and after awhile become so absorbed in the making of money they forget its uses. So, too, some scientific researchers become so absorbed in research itself that they lose sight of the object for which they are working.

I have more regard for the man who stands at the boundary line of his country, armed with nothing better than a club, if that is the only weapon he possesses, and endeavors to beat off an invading enemy, than I have for the man who refuses to aid at all, because he has not yet perfected or discovered some powerful weapon that he thinks will destroy the enemy at one fell swoop. It is our duty to use the best means we have at hand in the most effective way possible, against the enemy—disease, regardless of the sneers and innuendoes of those who will neither fight themselves nor contribute better weapons to aid in the struggle in behalf of a suffering humanity.

I BELIEVE in the religion of Love—love for everybody and everything—the rich and the poor—the well and the afflicted—the weak and the strong—the old and the young—for man and for beast. I believe it were better to praise the honest living than to eulogize the dishonest dead—better to pluck a blossom from the breast of Nature and pin it with affectionate touch to the tattered coat of some forlorn unfortunate, than to lay a wealth of hot-house bloom upon some rogue's luxurious casket.—I. B. Smith.

NON-ORAL METHODS OF MEDICATION

Some of the conditions in which the hypodermatic, rectal, dermal and other non-oral methods will give the best results; with clinical suggestions

By GEORGE H. CANDLER, M. D., Chicago, Illinois

THOUGH almost every physician carries constantly with him a hypodermatic syringe his supply of remedies for use subcutaneously will be found, in the great majority of instances, to consist of morphine, strychnine, atropine, digitalin, glonoin and — sometimes — apomorphine. The morphine vial is, too often, emptied and replenished several times before the others are depleted to any extent; indeed many practicians never use "the needle" unless it be to inject morphine.

Advantages of Hypodermatic Route

In these days of active principles, when we are able to give a minute quantity of a remedy and secure almost immediately its positive physiological effect, hypodermatic medication becomes a subject of real importance and the modern therapist should hasten to take advantage of its superior efficacy in a great variety of disorders.

We are, moreover, able to give subcutaneously many remedies beside the alkaloids and the list is constantly growing; indeed, the physician who keeps *au courant* with therapeutic advances will find himself daily giving less and less medicine internally while affording quicker and more positive relief with remedies administered subcutaneously, locally or per rectum.

The advantages of hypodermatic medication are apparent. We do not have to wait an indefinite time for the action of the drug to become apparent; there is no necessity for giving large doses in order to insure the absorption of an unknown portion thereof; we are not compelled to upset sensitive stomachs or offend fastidious tastes; neither are we compelled to trust blindly to the body chemistry to do in this particular case, what we think it should do.

Some of the "Uncertainties"

Who can wonder at the "uncertainties of medication" when he realizes that it has been the custom to give the same "certain quantity" of mixed drugs to patients whose stomachs contain entirely different quantities of totally different material; which must, under varying conditions, form differing compounds or undergo unknown changes? It has *not* been the custom, unhappily, to ask whether "A" has recently eaten oranges, pickles, sweet milk, syrup, and wheat-cakes or a meal of crackers and lithia water. He has presented himself with a set of symptoms which we have been told yielded of yore to a certain mixture of drugs; therefore, it follows, that the usual dose of the accepted formula is given with a fond hope that relief will follow in this case. If it does, that formula gets a new laurel and is worked even harder in practice; if, however, the patient refuses to get better "the medicine is changed" (i. e. another well-tried and properly fathered prescription is exhibited) and the doctor has poor luck indeed (and the patient worse) if "something does not give" sooner or later.

Now it does not take a very deep knowledge of chemistry nor a profound insight into therapeutics to enable a thinking man to see that "A" with an empty alkaline stomach would be affected promptly and thoroughly by certain drugs in the usual dose, while "B", with a large meal of acid material undergoing digestion would remain entirely unrelieved. The same thing

applies even to the small dose of active medicine when exhibited upon a full or empty stomach. Prompt absorption and positive effect can only be depended upon when we know something about the stomachic conditions and base our selection of remedies and dosage thereupon.

Those who ridicule the "small dose, oft repeated, to effect, remedial or physiological," will do well to study along these lines; they will arrive at some interesting conclusions.

Drugs May be Given by Rectum

When we desire to secure, as promptly or decisively as possible, the effect of some particular drug we can do it by hypodermatic injection. In not a few instances the same result may be secured by allowing the drug to be absorbed from the buccal or rectal mucosa. Nuclein, for instance, may be advantageously placed under the tongue and (where it is impossible for the patient to swallow and a syringe is not handy) glonoin may be dropped in the mouth with assurance of speedy and satisfactory results.

In many inflammatory disorders of the upper respiratory tract aconitine will give better results when absorbed by the buccal membrane. In the spasmodic stage of whooping-cough, gr. 1-67 of cicutine thrown into the rectal ampulla with an ounce of hot water will give relief in ten minutes.

Gr. 1-250 hyoscyamine exhibited in the same way will often put an end to a troublesome attack of asthma (non-cardiac) and a screaming, struggling, hysterical woman will promptly go to sleep—or remain quiet, which is as desirable—under the same medication. Hyoscine hydrobromide may be given to the epileptic or sufferer from delirium tremens in precisely the same way with very pronounced success. In all cases, where at all possible, the lower bowel at least should be emptied (flushed) first.

A Useful Expedient in Croup

In attempting to list some of the disorders which may well be treated by hypodermatic medication I cannot refrain from again calling attention to the marvellous efficacy of peroxide of hydrogen injected into the tissues over the thyroid in membranous croup. The idea struck me when attending a moribund child and the speedy restoration of respiration and ejection of false membrane proved its value. Since publishing the method, several physicians in various parts of the country have written me that they have been enabled to save lives which must otherwise inevitably have gone out.

The treatment—like all good things—is simplicity itself: Mix twenty drops of H_2O_2 (as acid-free as possible) with an equal quantity of glycerin and water (equal parts) thus making forty drops of solution. Fill your syringe (which should be *clean*) and inject the fluid into the tissues immediately over the thyroid gland. Inject slowly and turn needle meanwhile so as to spread solution. Absorption is rapid and within five minutes the breathing will become easier, color will return to the cyanosed face and, within the quarter hour, the occluding membrane will be expelled. In the croup season it will pay to carry a vial of peroxide and another of glycerin and distilled water in the vest pocket. Change the peroxide every few days: it deteriorates rapidly.

Abscesses, Boils and Carbuncles

Abscesses and "boils" may be aborted by injection into them of a few drops of pure peroxide. I have cut short carbuncles and buboes by injecting five drops of pure carbolic acid into the center of the mass. Carbuncles may however call for several injections of two drops in different places. Select (if present) the areas where the skin is thin and discolored—*not* red and tense.

The injection of hemorrhoids with carbolic acid need only be mentioned here. If you *do* inject use *enough* of a fifty-per cent solution of carbolic acid in olive oil and you will never decry the injection method. Failures have invariably been due to too little of or too weak a solution.

Chorea can be controlled by hypodermatic injections of one grain of scutellarin twice daily, or, in serious cases, this drug

may be alternated with gr. 1-40 of curare.

General Convulsions.—Here perhaps gr. 1-12 to gr. 1-8 of morphine will prove most satisfactory. As soon as the convulsions are controlled (or even sooner) seek for the cause and treat *that.* Infantile convulsions often yield to gr. 1-12 of apomorphine. When due to disease of brain or cord, cicutine, gr. 1-67, per rectum will give best results.

Puerperal Convulsions.—Veratrine gr. 1-134 in a *weak* saline solution. Repeat in ten minutes or, better still, after giving hypodermic, throw four ounces of warm saline solution containing gr. 2-67 of the alkaloid into the rectum. The great value of hyoscine-morphine-cactin compound is likely to be established here. Chloral hydrate per rectum for maintained effect.

Congestive Chill.—Atropine, gr. 1-250, will promptly "break" the chill. Full doses of quinine bisulphate should follow and the bowel be thoroughly emptied and rendered aseptic.

Croup.—Apomorphine, gr. 1-12, when suffocation threatens will almost surely save life.

Dysentery.—Small doses of atropine and strychnine will control tenesmus; emetine (in massive dosage, gr. 1—dry on tongue) followed by zinc sulphocarbolate and codeine, together with alkaline antiseptic colonic flushing, will usually complete medication necessary.

Nocturnal Enuresis.—Strychnine nitrate, gr. 1-67, injected in vicinity of the rectum every other night for a week or two has often cured. The urine must be carefully watched and preputial abnormalities (or *worms*) removed.

Epilepsy.—Cases which resisted all other treatment have yielded within two months to a weekly injection of a solution of curare (curare gr. 2, ac. hydrochlor. gtt. 2, aqua. dist. minims 25). Four drops of this solution is injected every sixth day. Stimulate elimination and feed lightly.

Erysipelas.—Pilocarpine to effect, with other indicated remedies per os and carbolic acid (3 per cent solution) injected drop by drop around the edges of affected area. Paint surface with pure carbolic acid (go a little over on to the sound skin) and in one minute neutralize with alcohol. This will dispose of erysipelas very quickly.

Foreign Substance in Esophagus.—Apomorphine, gr. 1-12, will quite often cause the expulsion of the offending substance. Give enough apomorphine and the stomach will empty itself within five minutes. As the drug relaxes muscular tissues generally, it serves in this instance a double purpose.

Fractures (united) will often begin to knit if a few drops of acetic acid are injected between the ends of the bone. Iodine, gtt. 5, has also given satisfactory results. Use great care in injecting and be sure your needle is long enough.

Goiter.—Injections every third day of ergotin, gr. 1-3, with full doses of phytolaccin and desiccated thyroid prove most effective—especially in early stage.

Hemoptysis.—Give at once atropine gr. 1-250. Ergotin or sclerotonic acid may follow. A small dose of morphine will quiet patients; do not give this drug however till hemorrhage has been controlled, and do not let the patient know morphine *is* given. Bear in mind that ether or ethyl chloride sprays to nape of neck and over sternal notch often check hemorrhage and sprays of liq. ferri subsulph., one dram to eight ounces of water, will prove extremely useful. A certain quantity of fine spray will enter the bronchi.

Hemorrhage.—It does not matter much what the source may be it will usually lessen after the use of atropine, which, by flushing the capillaries, lessens the supply of blood to the part. When ergotin is used the following solution will prove desirable: ergotin, gr. 25; glycerin (pure), water dist., each one-half ounce. Ten to twenty minims will be the dose. Ether, one dram, may be injected into the muscles as a stimulant in copious hemorrhage. After severe uterine hemorrhages, when there is a tendency to thrombosis, inject a dram of aqua ammonia with an equal amount of water. Hydrastinine and stypticin will prove the most efficacious remedies per os in all uterine

hemorrhages; apply iron alum to os and tampon vagina tight. In hematemesis after atropine and later ergotin hypodermatically; hydrastinine per os, will usually suffice.

Hiccough.—Apomorphine, gr. 1-12, will speedily stop most cases. The same dosage will end the violent mania of alcoholics. Later, very small doses will keep them quiet. If hiccough persists an average dose of pilocarpine will serve.

Obstipation.—Magnesium sulphate, gr. 2, in one dram of *hot* water, will often prove promptly beneficial. In fecal obstruction give high enema of kerosine (one to two pints) and same dose as above. Castor oil and olive oil, dr. 1 of each t. i. d. for one week afterwards, with gr. 1-67 of strychnine and hydrastin to restore tone to bowel mucosa.

Opium Narcosis.—Apomorphine to empty stomach; wash out stomach, bowel and bladder, and give hot black coffee per os and per rectum. Small repeated doses of atropine till pupils dilate.

Retention of Urine.—Strychnine nitrate, gr. 1-67, and ergotin, gr. 1-3, may be injected alternately into the fossa behind trochanter. When atony of bladder causes retention this method is promptly effective.

Snake Bites; Hydrophobia.—Curare controls convulsions in the latter disease. Carbolic acid may be injected into the puncture caused by snake teeth. Ammonia may be injected into a vein if the poison has entered the system. An excellent plan is to pass a ligature above the bite (when possible), to suck the wound, and then make an incision through each puncture; let these bleed for a minute then flush with carbolic acid, passing needle to bottom of cut; after one minute neutralize with alcohol. Dress with fluid echinacea. This method has saved many lives. Always purge patients and give calcium sulphide, gr. 1-6 hourly for two days.

Saliva and Perspiration, Suppression of.—Pilocarpine, gr. 1-8, will promptly restore secretion.

Excess of Saliva and Perspiration.—Atropine acts positively. Agaricin is an excellent remedy in the night sweats of phthisis (per os).

Suppurative Conditions.—Injections of H_2O_2 or carbolic acid when pus is localized; inunctions of colloidal silver ointment dr. 1-2 twice daily in *all* cases. This agent destroys the streptococcus, etc.

Surgical Shock. — Strychnine often injurious; digitalis acts too slowly. Try five grains of quinine hydrochloride and gr. 1-12 of morphine hydrochloride. Then give cactin, gr. 1-67 every three hours.

Tumors.—Small erectile, may be destroyed by injecting into their centers a few drops of carbolic acid (pure). Throw ligature about base and inject a few drops of perchloride of iron and sodium chloride (normal saline) solution, one part to two.

Toothache.—Cleanse cavity (if one exist) with H_2O_2 and then apply a crystal of carbolic acid—or a drop of pure 95 per cent — with camelshair brush. Cover with plug of cotton soaked in collodion. Iodoform-collodion on cotton will often serve alone and it occludes cavities. Oil of cinnamon also efficacious.

Papules, Small Furuncles and Nasal Polypi.—Touch with pure carbolic acid. If necessary repeat. Larger polypi may be transfixed and a 75 per cent solution of carbolic passed through slit on cotton-wrapped probe. Two applications will usually kill the growth. In diphtheria, smear affected area with liquified carbolic acid crystals. Be sure there is no excess of fluid in cotton; apply till parts turn white. Touch lightly infected tonsils in same way. If normal tissue should be burned, spray with alcohol and water, equal parts, or better touch with pure alcohol.

Burns.—The use of carbolic acid should never be omitted. Go over area with the acid on camelshair brush, then dress with carbolized vaselin or oil. Any excess of acid may be neutralized with alcohol. Pain ceases and parts do not suppurate. A 2 per cent solution of creolin is excellent as dressing also. Give gr. 1-12 morphine to quiet patient.

Urticarial Wheals.—When severe and persistent will disappear if a few drops of H_2O_2 or a saturated solution of sodium bisulphate are injected twice in twenty-four hours.

Blue mass and soda internally. High alkaline enema.

These are just a few methods of using drugs subcutaneously or locally. It is impossible to cover even a fair portion of the subject in an article but these suggestions may lead the reader to investigate the subject further. The man who has tried to pass a catheter or sound and failed owing to presence of stricture and then after an injection of ten minims of a lobelin solution has passed the same instrument with ease realizes the value of local medication. So too the practician who has saved a croupous child with an injection of apomorphine, or quieted an hysterical or alcoholic patient with the same drug, is apt to determine that there are other ways of getting results from medicine than by exhibition per os.

The long list of active principles now at our disposal enables us to secure almost any effect we desire, promptly and positively, without disturbing the stomach with our medicines—or allowing the stomach to disturb them, which is equally important. Glucosides and resinoids are not as a rule soluble in water but many of them are easily dissolved in glycerin or alcohol. With a little care either of these may be so diluted as to prove unirritating.

In closing it might be well here to accentuate the fact that weak saline solutions do not give pain to the patient, while plain aqueous solutions do. Clean, sharp needles of different lengths and calibers and a good syringe (all metal) should be always in the pocket or medicine case of the modern and positive therapeutist.

SOME PNEUMONIA BREVITIES

The treatment of pneumonia, its accidents, complications and sequels, boiled down and concentrated—printed in paragraphs of a single sentence

By WALLACE C. ABBOTT, M. D., Chicago, Illinois

AS external application, light, compact and close fitting cotton-batting jacket well greased—camphorated oil good, most anything will do.

External heat by the use of bags and bottles of hot water or other means of keeping up uniform dry heat—poultices or other wet applications never.

By emptying and disinfecting the bowels, thus preventing autotoxemia, we remove about 40 per cent of the gravity of this disease.

Give calomel, gr. 1-6 (or calomel, podophyllin and bilein), every half hour for six doses, followed by sufficient saline laxative to flush the bowel.

If the stools are odorous, give sulphocarbolate of sodium, five to ten grains at a dose up to 40 grains each twenty-four hours.

After the stools cease to be malodorous, give just enough sodium sulphocarbolate to sustain this effect, the average adult dose being 20 grains a day.

For the fever give aconitine, gr. 1-134, to sustain the heart, and digitalin, gr. 1-67, together every quarter hour to one hour, according to need as shown by fever and pulse.

To the above, in asthenic cases, add to each dose strychnine arsenate, gr. 1-134, to sustain all the vital functions and promote resolution.

In sthenic cases add to the aconitine and digitalin, veratrine, gr. 1-134, to curb fever and promote the elimination of the toxins generated by the disease.

The above two "triad" combinations form the standard basic treatment of all cases, changing from one to the other as asthenia or sthenia predominates.

Pleural pain or slight effusion is relieved by the use of bryonin, gr. 1-12 every half

to two hours until relief. It also promotes diuresis. Free elimination essential. Paracentesis in severe cases.

If typhoid depression supervenes, arouse the nerve centers by giving zinc phosphide, gr. 1-6 every six hours.

In the first stage, internal congestion, with profound depression, may be relieved by atropine enough to flush the skin, diverting the blood to the surface.

Add glonoin to the above for remarkable synergistic effect—one granule, gr. 1-500, of the former and one, gr. 1-250, of the latter. Give every fifteen to thirty minutes till revulsion is complete.

When profuse secretion is an annoyance or a danger, it may be restrained within proper limits by giving atropine enough to dry the mouth. Glonoin synergistic here, so also strychnine—preferably the arsenate.

Aged patients, following crisis, are endangered by accumulating secretions and low mucous sensibility. Give sanguinarine enough to relieve this condition. Antimony arsenate if viscid. Scillitin good.

Infantile and catarrhal forms are always benefited by giving emetine, as much as can be taken without inducing nausea, much less vomiting. So also small doses of sanguinarine and scillitin as above.

It is claimed that in the first stage the attack may be aborted by powerfully contracting the engorged vessels with ergotin —a grain every hour. Glonoin and atropine, with the defervescents—aconitine, digitalin and veratrine—better. Alternate, or to meet indications.

Morphine is never needed. Pain and delirium are relieved by the vasomotor remedies first mentioned, while cough is better relieved by codeine if any opiate is needed. Minute doses of potassium cyanide may well be added; morphine sulphate, gr. 1-16; potassium cyanide, gr. 1-24; tartar emetic, gr. 1-16.

In the aged, in low stages and after crisis, arnica has been found a useful stimulant; arnicin, gr. 1-6 every half hour to two hours. Sanguinarine and scillitin should be remembered—nuclein hypodermically and strychnine arsenate to take up the slack.

The most direct remedy to contract dilated capillaries and arterioles is hydrastinine, but no observations have yet been reported on its use in this condition.

There seems to be a consensus of opinion that the best general stimulant in all forms of pneumonia is to be found in strychnine. That is also our experience and belief—alcoholics never.

To utilize strychnine, give any salt chosen in doses of gr. 1-134, repeated every quarter hour, half hour or hour, until exactly the desired effect has been obtained; then give just enough to sustain it.

In dealing with little children, brucine nicely replaces strychnine, being one-fourth as strong and having some local anesthetic action which may prove to be of value.

After purging, a full sweating dose of pilocarpine at the outset may possibly abort the attack. Later it is dangerous.

The hyperemia and acute delirium at the outset may rarely be so severe as to require tartar emetic pushed to full sedative effect. Apomorphine and prompt elimination better.

Alcoholic cases are generally benefited by the use of capsicin, enough to arouse their digestion and sedate their nerves. Strychnine to effect regardless of amount required.

The delirium of alcoholic cases is usually soothed, in a singular way, by cocaine, gr. 1-6 every hour or as needed. Emetine just short of emesis and salines to profuse elimination.

The delirium and insomnia remaining after vasomotor regulation and intestinal antisepsis, are promptly relieved by hyoscine hydrobromide, gr. 1-100, and morphine, gr. 1-4. Half doses first for trial. Hyoscine alone often efficient.

Hemorrhagic cases must never be submitted to baths, but should have emetine up to the limit of toleration. Glonoin and atropine synergistic, perhaps better. Must be pushed to effect.

When recovery is delayed after crisis, give the arsenates to promote fatty degeneration of the exudate—antimony and soda the bases of choice.

Gastrointestinal irritation and toxin production are inevitable without the daily saline flush and sulphocarbolates to effect. A most essential and never-to-be-forgotten fact in all cases.

To prevent caseation, the most powerful remedy is arsenic iodide, gr. 1-67 four times a day. Antimony arsenate, gr. 1-67, may well be added.

In hemorrhagic cases with fragile cell-walls, after crisis give calx iodata with calcium lactophosphate—small doses persistently. Excellent to prevent exudation and promote absorption in all cases.

Iodoform soothes cough and favors absorption—best given, gr. 1-6 every one or two hours. In bronchial catarrh the following—iodoform, gr. 1-12; codeine sulphate, gr. 1-24; emetine, gr. 1-67.

Copper phosphide is said to be a specific, but probably acts as a duodenal antiseptic and a stimulant to the nerve centers. No experience.

Copper sulphocarbolate, gr. 1-67 every two hours, should prove an admirable antiseptic in this and other maladies. Experience limited.

In infantile cases a ten or twenty-grain quinine suppository is useful in breaking up an attack. Not to take the place of the defervescents, however. All principles of treatment, properly modified to fit, apply as in adult cases.

When the fever has been quelled and the vasomotors regulated, asclepidin will often come in nicely to sustain the effect— gr.1-6 to 1-2 every hour for adults.

Of all remedies veratrine stands at the head, as easing the heart by relaxing tension, and eliminating the pneumotoxin by all the emunctory apparatus. It is our best systemic eliminant, not only in this but in all toxic conditions. Digitalin may well be added.

In catarrhal pneumonias emetine should always form a part of the treatment. For children gr. 1-67 every hour, keeping below the nausea point. This is one of our most useful remedies.

The food should be very nutritious, easily digested, with the smallest possible bulk. Make beef tea, throw it away and give the beef remaining. Dry toast, rusk, wheat flakes—any solid simple food with little or no "slops."

An ounce of good coffee, unsweetened, made with milk, may be given every four hours. Four ounces of fresh fruit juice may be given each twenty-four hours when well tolerated.

The raw white of an egg may be given every four hours with a little water or orange juice. Egg-nog—egg and milk, whisky never!

Not more than 24 ounces by bulk of food and drink should be given each twenty-four hours. Pneumonia is acute. Patient never dies of starvation, but may die from over-feeding—eliminate!

Baths are useful in promoting elimination, but are not essential if the above treatment is employed. Omit unless they can be given absolutely right—seldom can or will be.

Great pulmonary oppression may be relieved by draining serum from the body, by enemas of saturated salt solution. Glonoin, atropine and strychnine to the limit. Salines strenuously.

All medicines should be given in solution, if convenient, hot preferred; each dose dissolved in hot water at the time of giving, or previously prepared in quantity and kept standing room-warm.

The man who has learned to use the above remedies in the sick-room finds it exceedingly difficult to account for any death occurring from pneumonia—will save a very large majority percentage (almost all if not all) of all cases—and will be slow to admit that there is "no treatment for pneumonia."

THE TREATMENT OF PNEUMONIA

This paper, which was read before the Smith County Medical Society, at Tyler, Texas, December 11, 1906, gives a resume of the alkaloïdal method of treatment, which the author has used in more than forty cases without a death

By JOHN S. CHRISTIAN, M. D., Lindale, Texas

WHEN I accepted the invitation of our esteemed and efficient secretary to prepare and read a paper on the treatment of pneumonia at this, the annual meeting of our county society, I did so with the purpose of honestly and humbly trying to add my mite to make our meetings more interesting, and hoping that I might bring to your minds some facts that would aid you in your efforts to alleviate the sufferings of mankind and help them to a more speedy return to health, and, perhaps, save the lives of some who without your skilful assistance would pass to the great beyond unbidden.

My remarks will be confined mainly to the treatment of this disease which I have pursued for the past six years, and which has given me great satisfaction, for I have not only had the pleasure of seeing all of my patients get well; but they have gotten well in a shorter time than I ever thought possible. The morbid anatomy, pathology, etiology and bacteriology have all been extensively elaborated in the text books and journals, so we need not spend any time here in considering any of these theoretical and scientific features of the disdisease, however important and interesting they may be.

What we want is facts about the treatment. It does not matter what we believe or write concerning the etiology of pneumonia, or how it is contracted, or whether it should be classed with the infectious diseases or not; this fact stands out far beyond and above every other one, namely—if pneumonia can be cured, it is not only our privilege to know it but our duty as well.

It is all right for bacteriologists, pathologists and every other conscientious searcher after the truth to write long treatises if necessary, and preach, practice and demonstrate their findings, for we who are at the front as general practicians have but little time for such investigation and many of us are poorly equipped for such work; therefore we are greatly indebted to these noble and untiring brothers in a sum we may never be able to compute, for without the knowledge they have, and are handing down to us every day, we would not nor could not keep abreast of the great onward march of progress which reaches out to every man and every calling.

The great victories which our nation achieved at Manila and Santiago were the inevitable result of having men behind the guns who knew when and how to use them. So also, if we would be victors we must not only know where to find the enemy, but we must know how and when to strike in order to restore our patients to health in the shortest possible time.

Mr. President, before I make what some would call a very radical assertion, I hesitate just a little, and I will make it with some mental reservation, for I know some of you will disagree with me and some may even criticise me and perhaps call me names; but I will not fall out with you for that, for ten years ago, I might have done the same thing.

Now by your permission I will say that the mortality from pneumonia should not be more than two per cent, or two out of every hundred cases. Does this announcement startle you?

Let us agree on a few facts before we proceed to the treatment. We all know there can be no pneumonia without there first being an unusual and abnormal amount of blood in the lungs, and in order

for this condition to exist, the blood vessels in the lungs must be dilated in order to accomodate the extra amount of blood, and at the same time and on account of which some other part of the body will necessarily have too little blood. Now anything may act as an etiologic factor which will invite an extra amount of blood to the lungs, or that drives the normal blood supply from some other part of the body. Many things might be mentioned with profit here; things which exert their influence internally, in the blood itself, and in the lungs, as microorganisms, and those which exert their influence from without, as a sudden lowering of the surface temperature, atmospheric conditions, etc. But all this ground has been sufficiently gone over by the writers of textbooks, so much so, that we may have no excuse for ignorance in regard to the facts which have been settled so far as our present knowledge extends, by the most painstaking and scientific research.

The Diagnosis of Pneumonia

The diagnosis of pneumonia is reasonably easy, especially so when the onset is marked by a chill, and the temperature within a few hours reaches 104° to 106°F, but when the attack comes on stealthily as it were, without a chill or anything else to mark the onset, we have more difficulty in making a diagnosis; and it is these cases which often give us the most trouble, for if we fail to make a diagnosis early we also fail to give the patient the advantage of having the proper treatment in the early stage of the disease, which is all important, as many times the patient's life hangs on the conduct of the case during the first twenty-four to thirty-six hours. We cannot fail to agree on this proposition. If it is possible to disperse the accumulated blood from the lungs, and subdue the inflammation, it is always proper to do it, and if this result can be achieved and we fail to do it, somebody is responsible for the failure. I say this can be accomplished; but it will have to be done in most cases in the first thirty-six hours after the onset, for every hour of failure or neglect thereafter but adds to the difficulty, and lessens the sufferer's chances for an early recovery at all is rendered more hazardous.

The Treatment of Pneumonia

Little can be accomplished until the *primæ viæ* have been thoroughly emptied, and for this purpose nothing will serve your purpose as well as calomel gr. 1-3 with podophyllin gr. 1-6, every half hour until six or eight doses have been given, this to be followed in one hour with saline laxative, or Epsom salt, in sufficient dose to secure the cleaning out in reasonably short time. Next thing to be done, which is equal in importance, is to equalize the circulation, and for this purpose aconitine and digitalin should be given "to effect."

I will stop here long enough to say what may be the most important thing which the paper contains, and I want you to hear me. The diagnosis may be correct, and the selection of remedies may be above question, but unless the remedies are given until their physiological or remedial effects are secured, failure is sure to be the result. If the patient is robust, with high fever, and full bounding pulse, veratrine should be combined with the aconitine and digitalin.

I always carry with me and prefer the defervescent compound, each granule of which contains aconitine, gr. 1-134, digitalin, gr. 1-67, and veratrine, gr. 1-134. For an adult thirty to forty of these granules should be dissolved in four ounces of water and one teaspoonful should be given every fifteen minutes to half an hour until temperature is reduced to 101° or even 100° F., and the pulse rate is brought down to 80, or even 70 beats per minute, and then given every half hour to one hour until a normal temperature and pulse are established. It will sometimes be necessary to reduce the dose as well as lengthen the interval, as the temperature and pulse near the normal condition, and then on the slightest rise the remedies should be resumed.

If the sufferer is very old or enfeebled from any cause, instead of giving the defervescent compound as above, it would be better to give the dosimetric trinity, which has strychnine arsenate instead of veratrine. The granule last named contains aconitine, gr. 1-134; digitalin, gr. 1-67; and strychnine arsenate, gr. 1-134. The same-size dose and the same intervals should be observed as laid down for the defervescent granule. If the sufferer belongs to neither the sthenic or asthenic type, the aconitine and digitalin may be given alone with equally good results, unless there should develop a cardiac weakness, in which case the trinity granule should be given. The above dose is for adults of course, but almost double that amount may be given with perfect safety if the effect is closely watched.

Adjusting Dose for Children

It is always a problem of vast importance to adjust the dose properly for infants and children. Of the above remedies it is always safe to dissolve one granule for each year of the child's age in three ounces of water and give one teaspoonful of the solution every fifteen minutes till effect. Say for a child six years old, dissolve six granules in the 3 ozs. of water, which gives one-fourth granule for each dose, but I have had better results when larger doses had been given, and have often given double that dose with uniformly good results.

Alimentary Antisepsis

By the time the alimentary tract has been thoroughly cleaned out, the temperature and circulation will be responding to the above-named remedies, and if these are pushed to effect, as indeed all remedial agents should be, in from twelve to twenty-four hours the circulation and temperature can be brought to or near a normal standard. As soon as the calomel and podophyllin have gotten things moving right, the intestinal antiseptic, which contains equal parts of the sulphocarbolates of zinc, lime and soda, should be given in 5- to 10-grain doses dissolved in plenty of water, every four hours until breath and fecal discharges are odorless.

External Applications

External measures in the treatment of pneumonia, to be beneficial, must be judiciously selected and thoroughly applied. Before I speak of the external treatment which seems to me to be the most rational and which I now use and would recommend to be used in all cases of pneumonia, modified or varied to suit each individual case, let me say that I do not use ceratum cantharidis any more; neither do I use the cold bath or cold pack. The fact that some have gotten well after having been blistered, and even some have dared to get well after having been submitted to the desperate freezing-out procedure, is no evidence that either had anything to do with the recovery, for some have been known to recover without any medical aid whatever.

Far superior to any other external remedy that I have ever used, is what I call camphorated oil, my formula for which is as follows: Gum camphor, oz. 1; oleum terebinthinæ, oz. 1; oleum olivæ, q. s. ad ozs. 4. Both of the oils are solvents of the gum and will readily dissolve that proportion. This oil should be applied hot to the chest wall all over the affected side, or on both sides if the disease has attacked both lungs, then a flannel cloth is saturated with the oil and applied warm to the chest and over this several thicknesses of cotton batting, and all is to be held in place by a snugly fitting jacket or bandage. This should extend from a little above the clavicle to the sixth rib, and should not be removed until all symptoms of inflammation have subsided and the temperature and circulation have been normal for at least two days.

If the patient is suffering much pain at the first visit, I sometimes use the following: Ground white mustard, one part, to vaseline, three parts. Mix and spread evenly on thick cloth and apply over the seat of pain or all over the chest if needed and

hold in place by bandage for two or three hours. Or this one has proven equally satisfactory and can be found in almost every house, namely—spirit of turpentine. To get the best results from this very efficient remedy the chest wall should first be scrubbed with coarse cloth and hot water and then the turpentine should be applied warm, then olive oil or lard should be used liberally to prevent unnecessary burning, and a cotton jacket or bandage closely fitted around chest; or if the skin is very tender and sensitive, as in infants and children and some adults, libradol (Lloyd) should be applied over the affected part after thorough scrubbing of the skin with warm water. This should be left on for from twelve to twenty-four hours.

What Expectorants Should Be Used?

The cough syrups and expectorants which are usually prescribed are not only useless, but are frequently positively harmful by causing the stomach to reject the medicines which are essential. If the cough is very troublesome, dry, harsh, incessant and expectoration scant, much benefit will be derived from the following: Emetine, granules 50; codeine sulph., grs. 3 to 6; glycerin, drs. 4; aqua q. s. ad. ozs. 3. Give one teaspoonful every two or three hours till effect, which will be a loosening of the cough, free and easy expectoration, and the bronchial irritation will be much relieved. Emetine is one of the alkaloids from ipecac and is the only one that has true expectorant properties. This is the only expectorant needed. I do not use opium in any form, except codeine, and do not give that unless the cough is so troublesome that the patient is deprived of the necessary rest.

I wish I could think of words strong enough to condemn, as I believe they should be condemned, the use of fly blisters, alcoholic stimulants, the cold pack, antipyrin, antifebrin and all of the other coal-tar preparations, and the syrup expectorants. I do not use any of these now for I have been led to accept a better way and better remedies.

If you were a little shocked and began to think me beside myself when I said that 98 per cent of the cases of pneumonia ought to get well, what will you say now when I declare to you that not only 98 per cent ought to get well, but they ought to get well inside of seven days, and a majority should be convalescent by the fourth day?

Shall the Physician Be a Spectator Only?

In the name of all reason, what right have we as physicians to be spectators in the sick room, watching a disease go on in its deadly march from one stage to another, when if we act promptly and wisely in using the means which a beneficent Heavenly Father has placed in our hands, a large majority of the cases of pneumonia can be cured before it reaches the second stage? Rely on the old galenics, the tinctures, fluid extracts, syrups, etc., with blisters, cold baths, cold packs, antipyrin, and in addition deprive the patient of pure fresh air, and you will have abundant opportunity of watching your patient go from the first to the second, and then to the third stage, and from 25 to 50 per cent of them pass on into the Great Beyond.

One thing I desire to place emphasis on right now, and that is the great superiority of the alkaloids over the old galenics. You know that we are always dependent for the effect of our drug on the active principle or alkaloid which it contains. The fluid preparations of drugs, especially those made from the vegetable kingdom, are always unreliable (I would except those prepared by Lloyd Brothers), for they differ in strength as well as purity. They do not contain a fixed amount or per cent of the active principle, and their fluid preparations deteriorate with age, and from exposure to light, heat, cold, etc.; besides, nearly all the tinctures are now made from fluid extracts prepared by large pharmaceutical manufacturing houses for the convenience of the druggist and to the hurt of the physician and his patient; and then, furthermore, the standard of strength of the fluid drugs sometimes

changes, as has been the case recently, and the different manufacturing pharmacists make their products of different strength.

The Old and New Tincture of Aconite

How can we remember all this when we go to write a prescription? Take tincture of aconite as a fair example of the changes which the last Pharmacopeia made. Prepared by the old formula, it contained 35 per cent of the active principle—aconitine—three minims of which practically represented 1-100 grain of the alkaloid, whereas the tincture prepared by the new formula contains only 10 per cent of the active principle, and it will take 10 minims to be equal in strength to three minims of the old formula.

When we send a prescription to the druggist for tr. aconite, how are we to know which he will use? I will take the risk of being criticised by the druggist in saying that in my opinion a large per cent of the druggists, and therefore many of us doctors, do not know whether our tr. aconite contains 10 per cent or 35 per cent of the active principle. Then why not use only the active principle of drugs and trust nothing to uncertainty?

Quoting from The American Journal of Clinical Medicine, which is the most helpful medical journal it has ever been my privilege to read, I will say with all the energy and earnestness of my being: "Use the smallest possible dose of the purest obtainable drugs of known strength to effect," and you will not only be on the safest side, but you will be on the side that will win.

Perhaps it would be well to mention some of the reasons for giving aconitine and digitalin together, sometimes reinforced with veratrine and sometimes modified with strychnine. In some respects the two remedies would seem to be antagonistic, and therefore physiological incompatibles, but not so. While one is a vasoconstrictor and the other is a vasodilator, they will act in perfect harmony, each producing its effect where needed to restore the circulation to its equilibrium. You say that we get certain life-giving principles from the food we eat, and when the process of digestion is finished and the prepared pabulum which we call chyle is poured into the circulation, that each cell in the body selects and appropriates just the principle which it needs for its support and lets all the rest pass on; then why not with as much reason and intelligence say that each will select such part of the remedy as is needed to restore the organ of which it is a component part to a normal condition and let every other drug principle alone. I will not follow up this thought, however much I should like to do so, but will just mention it for your consideration, and you can give it such thought as you believe the facts together with your interest will warrant.

Some Personal Experiences

It was my desire to report half a dozen or more cases taken at random from my records, to show you how I treat pneumonia and how they all get well, but my paper is already longer than I expected, so I will have to forego that pleasure, and you will be saved the fatigue of listening longer; but before I close I will say that for the last five years I have used only the remedies mentioned in this paper and in the manner which I have endeavored to elucidate, and although I have had more than forty cases of pneumonia, ranging in age from three months to sixty-eight years, and although in this number of cases almost every phase, type and feature of the disease was presented, still I have not lost a case; and besides that every case has been dismissed by the seventh day, and at least half of them by the fourth day.

Thanking you, Mr. President and members of the society, for your earnest attention and long drawn out patience, I will close with this sentence: It is my opinion that the time is fast approaching when it will be a disgrace to the medical profession in general and to the attending physician in particular for a death to occur from pneumonia.

A PHYSICIAN AMONG THE INDIANS

A doctor's life at a frontier army post and among the Indians. Indian life, Indian habits and diseases. Something about the Indian "medicine man"

By CHARLES S. MOODY, M.D., Mullan, Idaho

II

AFFECTION for children is an Indian characteristic. There is no savage that does not love little ones. I have never seen an Indian mother or father punish a child, nor have I ever seen an Indian child cry. All day I have watched the little fellows strapped to their board and stood against the side of the teepee, but never did I hear one of them cry. An Indian child never sobs when hurt. Just an extra snap of the bright black eyes and a slight frown is all to indicate to the observer that the little fellow is suffering.

An Indian considers tears an evidence of extreme weakness. This will account for their lack of patience in times past with captives who were all the time sobbing. The captive who stood the best chance of his or her life was the one who stood the suffering without shedding a tear. The savage captor reasoned that if a person was suffering to dash out his brains was a charity, or that to have him sniveling all the time was calculated to exercise a demoralizing effect upon the expedition and he was better off dead. Investigation will prove that this is the correct explanation of the cruelty of savages on the war path. It is the almost invariable rule that children too young to realize their condition have been spared. This is not an excuse for savage cruelty at all; it is simply an explanation of savage mental processes.

Syphilis—Early and Late

Many interesting cases of syphilis in its various manifestations came under my observation. It has been currently understood that the early white settlers and explorers inoculated the savages with this disease. The older men tell me, however, that the people have been afflicted with an eruption of the skin that from their description must have been syphilis, from the farthest tradition. It will not do to discredit this statement upon the part of these old seers, for they are the especial repositories of the traditions and history of the people for ages back. Appointed in youth they receive the accounts of happenings long past and treasure them in memory. To these they add the happenings of their own day and in turn transmit them to posterity.

In proof of this I have only to mention the fact that the accounts of these song-singers (as they are called), of the Lewis and Clarke expedition tally perfectly with the written narratives of the explorers themselves. It is usually accepted that Lewis and Clarke were the first white men to hold communication with the northwestern tribes. The Indians themselves have a tradition that white men visited them long years before Lewis and Clarke ever saw the Columbia. How true this is we can only surmise. It is evident, however, that the Indians were inoculated with the poison of syphilis many years before the spread of the white man into their country from the region of the Missouri. Where did they get it? The finding of a spear head of bronze on the lower Columbia some years ago would suggest that perhaps the Spaniards had penetrated that region sometime in the seventeenth century. If so, history has failed to record that fact.

Syphilitic Iritis Common Among Indians

While skin eruptions are not uncommon the disease usually manifests itself in syphilitic iritis. Hardly a member of the

tribe but at some time is afflicted with iritis and many of the older Indians are totally blind from its ravages. The iritis is often aggravated by the purulent conjunctivitis induced by hovering over a smoky camp fire. Whether the conjunctivitis is of syphilitic origin or not I am unable to say. The iritis is very obstinate to treat, in fact I do not now recall a case that has yielded to treatment, due, I presume, to the fact that you cannot bring the native mind to realize the importance of persisting in the treatment, and it is manifestly impossible to induce them to take mercury in any form. A very singular fact in this same connection is, that I have never seen an infant manifest syphilis. I have never seen a case of so-called "snuffles." The Indian infant is as free from hereditary taint as any class of infant. The disease generally makes its appearance at about the third year of life.

Pneumonia and Phthisis the Great Scourges

After syphilis in the ratio of importance come pneumonia and its sequel, consumption. It is safe to say that there is not a person in the entire tribe who has reached the age of puberty but has had one or more attacks of pneumonia. The death-rate from this malady aggregates more than from all other diseases combined. This is not to be wondered at when you pause to reflect that from the time the rains start in the autumn until the ground dries in June they go with wet feet and very often wet clothing. An Indian thinks nothing of tramping all day in the wet snow with no other foot covering than a pair of thin buckskin moccasins.

If the victim survives the various attacks of pneumonia tuberculosis is pretty liable to step in along about the time he reaches the age of fifty, and end the struggle for existence. Existence with them *is* a struggle from the cradle to the grave. It is a curious fact, however, that tuberculosis does not attack them until after they pass the climax of life. It is always (or nearly so) of the senile type. In all my residence among them I recall but three cases of tuberculosis in the younger members of the tribe and these among girls who had been educated in white schools.

Drifting Back Into Savagery.

One of them, a very brilliant young woman who had been educated in Carlisle, and had been a tutor there, contracted the disease and came home to die. When I first saw her she had not yet quite reverted into savagery but was drifting that way very rapidly. I kept her under observation during the course of the disease and could see her drifting back. One by one she discarded the little refinements that she had learned from her white teachers and returned to the ways of her ancestors, until at last she abandoned civilized ways altogether and died in a teepee wrapped in a blanket. So complete had the transformation become that she had almost forgotten the English language, and at the last insisted upon conversing with me in the native tongue.

A thought in that same connection: The education of the Indian in a higher sense is a failure. The white man cannot ingraft upon the savage soul his ideas of culture. The Indian is an imitative genius and will learn the accomplishments of the white man and apply them only so long as he is under the influence of the white man. Allow him to return to his tribal relations and he sooner or later reverts to the old tribal customs. The reservation is full of men and women who can speak Greek and Latin, give a college professor points on trigonometry, yet they are wearing breech clouts and braided hair. I was never more astonished in my life than when one of these blanket Indians taught me the proper construing of a sentence in Caesar.

I do not mean by this that the education of the savage is a failure, I simply mean that the higher education of the Indian is not only a failure; it is a crime. By all means educate the native. Educate him to be a self-sustaining citizen. Teach him the value of industry, economy, frugality, honesty. Teach him that only those who labor shall eat and you have accomplished

all that can be reasonably expected. The Catholic Church with its faculty of getting at the root of things, long ago saw this and in consequence the Catholic Indians are more self-sustaining than any other of our Indians. This may not meet the approbation of certain Protestant missionary workers but it remains a fact nevertheless.

Frequency of Congenital Hip-Joint Dislocations

One is struck with the number of congenital hip-joint dislocations seen. Fully one-tenth of all children born are thus deformed. It may be accounted for in various ways, but probably the accident is caused most largely by horseback riding. The Indian spends a great deal of time on horseback. If an Indian wishes to visit a neighbor living a mile distant he goes horseback. That a great many of the horses are fractious goes without saying. The gentlest cayuse will at times take a streak of "bucking." At such times the pregnant woman, not being an accomplished rider, gets thrown. A dislocation or fracture of some of the bones of the fetus, *in utero*, is the result of the fall. I take this to be the fact for I have confined many Indian women whose children were thus injured.

Whether or not an Indian possesses an especial immunity to the virus of the rattlesnake I am unable to say, but I do know that of the many cases of snake bite that have come under my observation I have never known a grown Indian to die. In the west the rattlesnakes are very numerous and living the nomadic life that Indians do it is no unusual thing for one of them to be struck. A few cases resulting fatally have occurred to me. One in particular deserves mention on account of the circumstances surrounding it. A half-breed girl of my acquaintance was out riding one afternoon and dismounted to drink from a spring. As she placed her hand upon the ground beside the spring a large rattlesnake struck her upon the wrist. Instead of riding home at once, she siezed the serpent and despite the fact that it was burying its fangs in her hands repeatedly she coiled it up like a lariet and tied it to her saddle. She then mounted her horse and rode home, fainting as she reached the doorway. I was summoned and did all that was possible to relieve her, but in vain. The Indians have a remedy that is sort of on the "hair of the dog" idea. When one is bitten they immediately kill the snake and bind a section of it upon the wound. Nothing can shake their belief in the efficacy of this remedy. Unless bitten the savage never kills a snake. Nor will he allow another to do so if he can prevent it.

The Annual Hunting and Fishing Trips

One of the duties assigned me was to follow the natives on their annual hunting and fishing jaunts. This was not so much to look after their physical being as to see that they did not break into the settlers' "melon fields," metaphorically speaking. As I before remarked, an Indian is a child grown up and he looks upon many things just as a child does. If he sees something that he desires he is very apt to appropriate the same to his own uses without the formality of asking the owner's consent. Quite often this has gotten the red man into difficulty. The white man is naturally jealous of his property rights and resents any miscellaneous appropriating of his goods and chattels. Very often the chief arbitrator of affairs here in the West, the Winchester, has been called into play with deadly effect and both whites and Indians have committed excesses in that line. Consequently the good father at Washington requested that I accompany these red children on their jaunts and restrain them.

I never found it at all difficult to do this. If you once make an Indian understand that property is sacred he will respect it. In a community where everything belongs to each it is very hard to bring him to realize the rights of property. He wants a horse to ride some distance and appropriates the first one he comes to. The white man, if he chances to own that particular animal, declares that the redskin has stolen his horse. He mounts his steed, grabs his Winchester and sets out to "shoot the Indian

up" a good deal. Now, there are very few Indians that like to be punctured full of forty-five holes for a mere trifle like borrowing a horse. In consequence an animosity arises between the twain that is often wiped out with blood. The Indian never intended to steal the horse and would have returned it as soon as his journey was done. The idea that all Indians will steal is fallacious. All Indians will no more steal than all white men will. In the main the savage will give his white brother points on honesty. An Indian will borrow anything and neglect to return it. If you mention the matter to him casually, however, he will cheerfully bring it back.

I started out to tell about some of our hunting and fishing experiences. The Indians were always solicitous for my welfare on these journeys. My horse was the first saddled in the morning, my tent the first erected at night, and when we reached the fishing and hunting ground my comfort was always first attended to. Never once did the Indians intrude upon me in any way. They realized that their methods of cookery were distasteful to the educated palate and never insisted upon my dining with them. If, however, they obtained a particularly nice morsel of meat or caught an especially desirable fish that morsel or that fish was always laid at my door. Each vied with the other in seeing me well supplied.

The Salmon Catch a Thing to be Remembered

The summer salmon catch is a sight to be remembered. Every summer the tribe repairs to the upper reaches of the river whither the June salmon have gone to spawn and lay in a supply for the winter. The river is wide and shallow with a sandy bottom, and one may stand upon the shore and watch the spawning fish as far as the eye can distinguish them in the water. Hundreds of great silvery bodies are toiling slowly up the rapid stream, intent upon reaching the highest possible point before depositing the precious eggs in the clean white sand. The river bank is dotted with the white tents and the women are busy repairing the drying frames that the previous winter's snow has broken down. The men are equally busy making ready the fishing gear. The salmon are all taken with a sort of grab hook fastened to a long handle.

At last all is in readiness and the fishers only wait the coming of night. When the lonesome little owl off in the dark forest begins calling, the great piles of brushwood that have been heaped upon the shore are lighted and throw a brilliancy over the river and light up the dim forest aisles. It reminds one of warlike times to see the dark, half-clad figures grouped about the crackling heaps of driftwood. They are waiting for the fire to attract the salmon.

Soon one sees a stir in the water then another. This is the signal for the attack. Every fisher, stripped to the waist, wades into the rapid current, his long handled hook in hand. The hook is lowered into the water and as it floats with the current it is jerked with a quick motion toward the fisher. Not many feet does it float before it strikes one of the fish and the fisher starts for shore dragging his quarry behind him. At times there are fifty Indians, all making for the shore at once and all chanting at the top of their lungs.

Before morning the shore is strewn with the white bodies of the captured fish and the women only await the coming of day to begin the work of curing them. From that time forward until the leaves of the alders turn golden beneath the blight of the autumn frost, it is a busy scene. Acres of drying fish are stretched upon the drying racks beneath which a slow fire is kept burning, while great heaps of them lie corded up like stove wood. The stench from the decaying flesh is calculated to make a man stand on the windward side of himself. The smell from the camp attracts the bears and it is an easy matter to slip out any morning and bag a fat bruin. Deer are plentiful and birds abound in profusion. A trip to the fishing grounds with my Indian friends was always one of my chief delights.

I started to tell a little something of life among the savages from the doctor's point

of view and the article has already grown too lengthy. I trust the reader will forgive the lack of literary merit and I trust also that he will find something of interest in this simple narrative of a few years of my life among these children of Nature in the wilds of the West at a time when the West was in reality wild.

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We asked our friend and colleague Dr. W. T. Thackeray, who has had many years of army experience, on the plains and elsewhere, to comment on Dr. Moody's most interesting article. Here is what Dr. Thackeray says:

"I have read this article with much interest and it brings vividly to mind my own experience upon my advent in Dakota. My first duty there was at Ft. Randall with the 22nd Infantry, Lt. Col., now Maj. Gen. Otis, retired, in command. We had the Yankton, Sioux and the Poncas (Omaha) and other tribes all about us, and some very stirring adventures came to us without exertion on our part.

An Indian's Revenge

"One in particular in the command was First Lieutenant C. C. Cusick, a full-blooded Indian and chief of the Tuscaroras of Niagara Co., New York. Cusick and myself were very intimate on account of our mutual love for hunting geological specimens. Well! to my tale: Cusick was off for a hunting trip north and fell in with a war party of northern Indians. He was compelled to run the gauntlet and finally escaped, arriving at the fort in a very uncomfortable condition as the result of this experience.

"Probably two weeks after the occurrence he came to my quarters, equipped for a tramp, and said to me that he proposed to bring me a handsome specimen that he was going to look for; and bidding me goodbye he was gone. Within a week after his departure he returned with a gunny sack over his shoulder and an Indian scalp at his belt. Entering my quarters he threw down the gunny sack upon the floor with the remark: " 'There is your specimen, Pills,' and kicking the sack with his foot there rolled from it an Indian head, minus the scalp lock and with a 45 bullet hole in the center of the forehead. Cusick had avenged his thrashing.

"The lieutenant resigned from the army shortly after this event and was Professor of Geology in one of the New York colleges the last that I heard of him."

IF I believed that we were unable to modify, arrest or favorably influence the progress of disease by therapeutic means. . . . I for one would not accept the position of a kind of superior nurse, with a watching brief, which eminent men in our profession (who know too much pathology and too little pharmacology) have assigned to us. . . If we are only nurses let us be honest and say so, and not accept fees for healing and wonder-working which in the nature of things we are unable to accomplish.—Dr. A. H. Bampton, in The Lancet, Jan. 19.

MORPHINE AND OTHER DRUG HABITS

The futility of the gradual reduction method of treatment; the withdrawal symptoms and their significance; exhaustion period and how best to treat it

By WILLIAM F. WAUGH, M. D., Chicago, Illinois
Emeritus Professor of Practice of Medicine, Illinois Medical College

THE following tale appeared many years ago. A physician, desiring to cure a patient of the liquor habit, presented him a box of pebbles, and instructed him to drop one, each day, into the bottle that contained his daily allowance of liquor. When the bottle was filled with pebbles the quantity of liquor that could still be added was measured, and another bottle substituted that barely contained this quantity. The pebbles were then employed as previously. In this manner the daily dose was gradually reduced imperceptibly, until the patient was weaned from his habit.

This was very pretty indeed, only for the minor fact that it will not work—at least with other drugs than alcohol. Nevertheless, when a physician begins to treat drug habits this is invariably the ideal he has in mind, as to the method suitable. His first case shows, however, that as soon as the patient reduces the daily dose until he begins to feel a pinch, he departs from the schedule and fills up, "good and plenty." The result is that the doctor blames the patient's lack of will power, and the patient says the doctor is "no good." Both are right, the patient being nearer so.

Two Main Difficulties

The manifold difficulties may be reduced to two—the firm conviction of the patient that he is to undergo an "ordeal," which he will endure as long as possible and then take enough "dope" to give relief; and the actual suffering due to the pathologic conditions presented. Until these are comprehended and obviated the suffering will endure, and it is beyond the will power of any but a most extraordinary character to withstand the impulse to secure relief.

This settled belief is to be dislodged only by such a knowledge on the part of the physician as will enable him to truthfully promise immunity. I have no confidence in the powers of suggestion if not based on such solid truth, because no permanent success can be built on falsehood; and the habit of confidently promising what we do not know we can perform is so near to falsehood that the insincerity must soon show in our face, and will destroy the effect. Besides, there is no reason for this, as the pathologic conditions are easily comprehended and readily removed.

One effect of a dose of opiate is to lock up a certain portion of the toxins produced by the metabolic processes, in the cells of the body. The persistent taking of morphine causes a persistent locking up of these bodies, the elimination consisting merely of the overflow. When the benumbing influence of the drug begins to be lifted these stored toxins commence to traverse the blood as they are released, and to exert their noxious influence on the vital organs and functions. The resulting symptoms are known as "withdrawal" indications. They are varied, as the generally poisoned blood exerts its apparent effects at the points of lowest vital resistance. Usually we have sneezing, shivering, head and other aches, insomnia, digestive disturbances, restlessness, innumerable paresthesiæ, and local manifestations. These persist for a variable period until there is a huge outpouring of bile, gallons of it, with a complete flushing of the alimentary canal, and the worst is over. Then comes the reaction, with the appetite and the digestion of a wolf, an enormous secretion of acid gastric juice

that compels meals perhaps every two hours, and a rapid progress toward health. The vital organs, released from the long inhibition take on excessive action and all the functions work at headlong speed. All the nerves are hyperesthetic.

Gradually this activity subsides, and a state of exhaustion supervenes. The vital functions are performed with difficulty, metabolism drags, and dyspnea with subnormal temperature denotes the deficiency. All sorts of unpleasant phenomena plague the unfortunate patient, until some day, by accident or design, he obtains a taste of his old drug. Immediately the difficulties vanish, euphoria is restored, and he goes back to his habit, not sometimes or perhaps, but as surely as that two and two make four.

How To Meet The Indications

The means of meeting these indications are obvious from their description. The use of calomel, emetine and salines, in skilled hands obviates most of the withdrawal symptoms. The early evacuations must be favored, the excess of the following period must be moderated, and the subsequent exhaustion prevented by judicious management and treatment. Space forbids a detailed account of the means to be employed, and besides the physician who is accustomed to prescribe drugs of known action for the indications presenting the need of each drug, needs no further instruction here. But I desire to say a word as to the means of supporting the nervous system when the habitual crutch has been withdrawn.

I have experimented with all the branches and material of the roborant medication and regime. The judicious employment of cold baths, massage, graduated exercises, climate, are of inestimable benefit when the patient's means permit their application under sufficiently skilled direction. All the tonics have their place, but there is far too general a resort to strychnine today. The tremendous powers of that drug have led to its indiscriminate application in many instances where a more appropriate agent could have been applied. It is a chief agency in inducing the stage of exhaustion. Some men are forever driving tacks with sledge-hammers. Some would apply a ten-inch belt to move the delicate machinery of a watch.

The Use of Caffeine

Some years ago I made much use of the alkaloid caffeine, liquefying it with chemically pure sodium salicylate and injecting it hypodermically, in doses up to many grains daily. I got good results in many instances, but there are obvious objections. It is not good to continue the hypodermic habit; nor is it well to keep the patient trotting to a drugstore, where morphine is to be had. The taking of drugs is inadvisable when any other agency can be substituted therefor.

I turned to the caffeine-bearing plants. Coffee is a powerful remedy, but in some persons it causes anal pruritus, itself a symptom of an underlying pathologic condition; and possibly other evils spring from its use. Tea destroys digestion and the nerves, and one cup of tea at noon will entail on the writer a sleepless night. Chocolate contains an all but indigestible fat, and this is but partly removed in the preparation of cocoa, which itself contains a miscellaneous mass of uncertainties as adulterants.

Then I bethought me of maté. Many years ago I had become familiar with it in South America, and it was just then being highly advocated by a distinguished authority in England, as of special value in many nervous conditions. Maté contains caffeine, and possesses all the strengthening and conforting properties of the commoner caffeine beverages; but maté has none of the disadvantages enumerated above. The reason it has not won a place beside them is possibly the exceeding delicacy of its flavor, which impels new users to employ an excessive quantity of the leaves. But this exactly fits it for these cases, where the taste is hyperesthetic and minute doses induce large effects. Accordingly I imported a supply from

Argentina, and tried it. The results have been satisfactory, and each of my morphine cases for the last two years has returned home a user of maté in place of tea, coffee or chocolate, as well as of morphine. No undesirable effects have been detected, and as this is merely a form of "tea," none is to be expected. The only difficulty is in securing the maté, since it is not yet an article of common employment, but this will cease as it comes into general use. My own supply costs me a dollar a pound delivered here in Chicago, but this price should be lowered as the trade takes up the importation. A pound goes further than a pound of ordinary tea.

This matter illustrates my contention that no two remedies of a group exert precisely the same powers, and that we lose by not testing our groups separately. We assume that strychnine represents also brucine, thebaine, laudanine, calabarine, gelsemine, and the others, but I am convinced that close examination would display diversities of action that could with advantage be fitted to similar diversities in the cases for which we utilize strychnine alone at present.

HOW ALKALOIDS ARE OBTAINED

An outline of the commonly employed methods for the separation of alkaloids from crude drugs, their purification, economic preparation and scientific study

By A. D. THORBURN, Ph. G., Indianapolis, Indiana

METHODS for the extraction of alkaloids are based upon the properties of the compound of the alkaloid naturally existing in the crude drug and on the properties of the other substances present. Crude drugs vary greatly in these respects and consequently methods for the extraction of alkaloids differ widely.

Selection of the Menstruum

In each case it is necessary to first extract the drug by maceration or percolation, either hot or cold, with a liquid that will dissolve the alkaloid and leave behind most of the other substances. Many experiments may be necessary before the most satisfactory menstruum is determined. Usually alkaloidal bases or the naturally occurring compounds of these bases are soluble in ether, chloroform, acetone, etc. In experimental work on little-known drugs these or similar solvents may be tried first, but in actual commercial practice it is not always desirable to use these solvents. Not only must cost be considered, but as the individual peculiarities of each drug become known distinctive processes can and should be devised to meet the needs of each individual case.

Quinine and the alkaloids of cinchona existing in the bark in combination with organic acids can be extracted by milk of lime, which obtains them comparatively free from coloring matter, associated acids and other undesirable by-products. For a time diluted hydrochloric or sulphuric acids were used to dissolve these alkaloids from the bark. Strychnine is usually extracted from nux vomica with mineral acids. In some cases, as colchicine, the alkaloid is best obtained by exhausting the crude drug with alcoholic liquids and then purifying the extract by solution in chloroform, avoiding both acid and alkaline solvents. Some alkaloids, as atropine and similar bodies, are decomposed by heat and moisture unless acid be present, and this property must be regarded in the work of isolating them from crude drugs. In the separation of morphine from opium, exhausting the crude drug with water has been found a satisfactory beginning.

Having made a separation of the alkaloid and some associated bodies from the bulk of the crude drug the problem next presented is the purification of the more active constituent. This usually requires a number of manipulations and is generally begun by concentrating the first solution and then extracting the residue with other solvents. In some cases, caffeine for example, the first liquid extract is partially purified by lead acetate which removes tannin, some mucilaginous substances, etc. It is then necessary to remove the lead compound from the liquid which still contains the alkaloid. A method for the separation of cocaine, patented in 1895, worked up the liquid extract from coca leaves by precipitating the alkaloid as a double sulphocyanide of cocaine and zinc and then obtained the alkaloid from this precipitate. It is consequently not good practice to use the same method of purification alike for all alkaloids. In some cases filtration through animal charcoal is of service in separating coloring agents, etc.

Having obtained the alkaloid in a nearly pure state it may be further purified, usually, by dissolving in acid and precipitating the alkaloidal base with an alkali: this process may be repeated several times. Finally the alkaloid is separated from the last traces of impurities by repeated crystallization, and usually we may believe that a lot of solid alkaloid which has not been crystallized has not been obtained in a state of high purity. Much care is necessary to avoid introducing new impurities through the use of impure reagents or by decomposition through exposure, etc., as in concentrating the solutions.

Rewards of Careful Study

That there is much reward in studying each drug as an individual rather than as one of a group is illustrated in the manufacture of cocaine where it was found that the amorphous alkaloidal by-products after being hydrolyzed and made to react with other compounds could be made into cocaine and so the yield of this desirable alkaloid from the crude drug was greatly increased.

Much loss usually occurs in the isolation of alkaloids from crude drugs. There is first the difficulty of extraction—it being better sometimes to extract only a part of the quantity of alkaloid present rather than to try to get all—and secondly in purifying there is a loss of much of the active substance. This loss greatly increases the expense of producing these desirable medicinal agents.

Other factors in the expense are labor—considerable when the bulky crude drugs are handled—loss of menstruum through evaporation and in other ways, and the cost of crude material. Because of the loss occasioned thereby and the difficulty of getting a pure substance there has always been a tendency to market such products as amorphous alkaloids rather than crystallized. Amorphous alkaloids are not absolutely pure nor of definite composition, though of course they are a long step in that direction. Crystallized alkaloids should usually be preferred when obtainable.

The manufacture of alkaloids on either a commercial or experimental scale usually requires the investment of a large sum of money. Much specially devised apparatus and considerable space must be provided. Provision must be made for handling large quantities of crude drug. If a factory be described as having an output of a half-pound of alkaloid it does not seem nearly so important a place as if it be described as consuming 200 pounds of crude drug. Yet the factory must be arranged to handle the incoming large quantities if it is to produce the outgoing small quantity of the purified alkaloid. Steam for heating the liquids is an essential and provision must be made for the recovery of such solvents as ether, chloroform, benzol, etc., if these be used. Altogether this line of pharmaceutical manufacture is entitled to rank as a special field and well merits the consideration given it by physicians who are indebted to alkaloidal investigations for many therapeutic advances.

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It is said that in Europe many persons devote themselves to specific horticulture.

each person selecting a single flower to which he devotes his entire attention. In this way many important advances have been made. Similarly, many physicians could take each a single plant and devote themselves to the extraction of its alkaloids, etc., provided the requisite apparatus were within reach. While large works may be necessary to produce a full line, could not a single plant be handled in this way?—Ed.

LECITHIN: ITS ACTION AND USES

This is a condensation of an article which appeared some months ago in "La Madicine Orientale," the name of the author not being given. It is an excellent resume of our knowledge of this important remedy

Translated by E. M. EPSTEIN, A. M., M. D., Chicago

THIS medicament at its first appearance attracted great attention. Looking through the large literature on the subject, we see that the main therapeutic indication for this substance is in states of debility (whether from tuberculosis or not).

Lecithin is an organic substance obta ned from the hen's egg and from many other organic sources to be further enumerated. It is a phosphorated fat, which besides the organic phosphorous content is useful for its easy assimilability, which is so difficult with ordinary phosphorus. The dose of the latter is usually given for adults as from one to five milligrams; some put three milligrams as the maximum dose. Still it always demands great prudence in handling it, and there are instances of poisoning with one or two milligrams in children.

How and Where Phosphorus Acts

Phosphorus is an organismic necessity, for the bones, brain (lecithins), muscles, and the red corpuscles (potassium phosphate). Ten grains of phosphorus are daily eliminated by the milk, urine and feces. In small doses it stimulates the appetite, and acts as a governor of nutrition. Its action is most manifest in the bony tissues, and Wegner demonstrated it to be osteogenetic, for feeding growing animals with phosphorus he saw the temporary cartilage pass ng directly into compact bone without passing through a spongy state; and then interrupting the feeding with phosphorus from time to time he found the temporary cartilage alternating with compact and ordinary tissue. In adult animals Wegner observed the narrowing of the Haversian canals and even in some cases the obliteration of the medullary canal.

The same important action on the organism we shall find in lecithin and without the dangers of phosphorus, since the former is well tolerated.

The Discovery and Source of Lecithin

In 1812 Vanquelin discovered a phosphorated fat in human brains. In 1846 Gobley making researches of the human brain and of the egg-yolk determined the characteristics of the substance which he named lecithin, from the Greek "lekithos" meaning "egg-yolk." After that came Hoppe-Seyler, Diakonow and Strecker, who succeeded in isolating pure lecithin and studied its decomposition products.

Lecithin forms the major part of the white fat substance of the brain (the protagon of Liebreich). This protagon might be a kind of lecithin, combined possibly with albuminoid matter, or might be a mixture with cerebrin which is an unnitrogenous body first extracted from the brain by W. Mueller.

There are both animal and vegetable lecithins and the following list will show

the percentages found in the different tissues, as far as ascertained:

Brain substance, white, up to	11 per cent
Brain substance, gray	2.50 per cent
Spermatozoids of the salmon	7.50 per cent
Other spermatozoids	1.50 per cent
Thymus gland	7.51 per cent
Liver	2.22 per cent
Retina	2.08 to 2.89 per cent
Bile from the gallbladder	0.22 per cent
Lupin	2.00 per cent
Red blood globules	0.72 to 1.86 per cent
Chyle	0.83 per cent
Beans	1.00 per cent
Lentels	1.00 per cent

Lecithin was also found in the cortical substance of the suprarenal capsules of man and of the guinea pig in two varieties which could be differentiated both histologically and chemically. One of these fats retains its solubility in xylol even after its being treated with osmic acid. This phosphoreted fat is, according to its discoverers, Bernard, Bigart, and Labbé, found proportionately to the total fats, in horses 45.3 per cent, in sheep 48.8 per cent, and in the rabbit 52.7 per cent. The proportion of this phosphoreted fat in the capsules to the total fat in it is for the horse 6.77 per cent and for man 2.08. The importance of this fat appears from the showing by Bigart and L. Bernard, that the suprarenal capsules react under the influence of muscular exertions by an increase of spongiocytes in which this phosphoreted fat is found localized. These authors think that lecithin may be actively secreted by the capsules.

P. Mulon found that the pigment of the suprarenals in the guinea pig are deformed protoplasmic cells filled with granulations of a lecithin character and which are in direct contact with the blood. Another place of lecithin, is, according to the theory of Cl. Regaud, the liquid secretion of certain seminal epithelial cells of the rat. Lecithin, or a fat like it, was found also in the ovule and in the *tubuli contorti* of the kidneys.

Balthazard found as high as 22.9 per cent of lecithin in the fresh fat of goose liver. This high percentage of lecithin proves that we have here to do with a surcharge of lecithin and not with a lecithic degeneration of nuclein. Lastly, lecithin was found in rapidly growing tumors, and, in a word, wherever the protoplasm was the seat of great vital activity.

The Chemistry of Lecithin

In either its free state, or in its combination as a salt, lecithin changes rapidly, especially when heated and still more so under the influence of an alkali. It then decomposes and gives off phosphoglycerates, stearates, oleates and margarates, alkalies accompanied by cholin. Streaker gave the formula of lecithin as $C_{42}H_{84}NPO_9$, and makes it the product of the union of phosphoglyceric, oleic, and margaric acids and nervine (cholin).

The lecithin used therapeutically is a combination of glycerophosphoric acid with fatty acids, oleic, butyric, palmitic and stearic, with cholin as a base. In all these the glycerophosphoric acid is the common nucleus of the lecithins, in which the phosphoric acid has the acid functions, and the glycerin the alcohol functions. By the acid function the lecithin is susceptible of fixing a base; cholin is the subject with which we are occupied here; and by the alcoholic functions of the glycerophosphoric nucleus of the lecithins they can combine with the various acids met with in the organism and unite with them as they are in the fats. The slight differences between the properties of these acids impress but the smallest differences on the various lecithins which are composed of them. Cholin is a base which can represent either a basic function, or also an alcoholic function, and it can, therefore, unite itself to a glycerophosphoric acid to form either a salt or an ether.

Lecithin appears as an amber-yellow waxy mass, almost inodorous, soluble in strong alcohol, oil, ether, chloroform, and benzine. At 150°F. it gets brown and begins to decompose.

Water does not dissolve lecithin, but makes it swell up and present a kind of

starch, and if the action is prolonged it divides in two, giving up the cholin. Water is, therefore, no menstruum for lecithin.

The salts of lecithin crystallize but the crystals are very unstable. It combines with platinum chloride, and forms a chloroplatinate which is sparingly soluble in alcohol, very soluble in ether and in chloroform, but the compound is unstable. It combines also with cadmium chloride. Sulphureted hydrogen precipitates all the metal from it and combines the lecithin in the state of an unstable lecithin chloride.

Lecithin dissolves in its own weight of hot alcohol, and of hot chloroform. This solubility will allow us to distinguish it from the hypophosphites that are soluble in alcohol and not in chloroform; and again from the nucleins that are insoluble in alkalies and also in sodium phosphate.

The Physiology of Lecithin

Prof. Danilewsky of the Kharkow University says in his paper read before the Academie des Sciences, Paris, the following: There is no doubt, that the division of the cell elements, their development, metamorphosis and differentiation are intimately connected with the chemical changes which take place in the nuclear and protoplasmic substances of the cell. We have to assume a direct or indirect impelling influence on the morphological course of the processes by either the substances which have already become integral parts of the protoplasm, their assimilation in it by external means being noticeable, or better say, by the substances which have become formed within the cells, owing to the chemical process proper of the living protoplasm.

We have to assume this because the stimulating or organoplastic action of the nutritive proteic substances is quite limited. That hypothesis seems more probably true, which attributes such a bioplastic force to organic substances which do not, like those proteids, come from without, but to those which become nascent within the bioplasm itself owing to the chemical force proper to itself. Of the greatest interest in this connection are the phosphorated substances which are integral parts of the nucleus, viz., nuclein and lecithin. It can be assumed *a priori*, that they are very important for the energy of cell growth and multiplication.

Prof. Danilewsky relates one of his experiments illustrating the above assumption. In one of two vases with water in which he placed fertilized frog spawn, he added from one to one and a half grams of lecithin. In two months after that he saw the tadpoles in the vase with lecithin to be half again as large as those in the control vase without lecithin. He also noticed that the water-cress which he put in the vases made from fifty to a hundred per cent longer roots in the vase with lecithin than the cress in the control vase without the lecithin. This beautifully confirmed Hoppe-Seyler's contention, that chlorophyl is but a lecithin in which the fatty acids are replaced by the special chlorophanic acid. It also illustrates the happy dictum of Stoklasa: "Without phosphorus, no chlorophyl, without phosphorus no lecithin." It was further shown by experiments on young dogs and plants, that lecithin is a stimulant of growing tissues, and in animals, especially the tissues of the blood-making organs, the spleen and the bone marrow.

When lecithin began to be administered therapeutically it was objected by some that if administered *per os* it is decomposed by the pancreatic juice, and it was thought best to give it hypodermically. But the answer is pertinent, that if it is decomposed it may again, like many other ingested remedies, be recomposed from the decomposed parts. But the fact stands unimpeached, that lecithin is not found excreted by either urine or feces, and it must, therefore do its beneficial work just as the lecithin in the organism. Lecithin has also a marked influence on the nutrition which shows itself by a greater elaboration of nitrogen and fixation of phosphorus and the augmentation of the animal's weight, and in this connection it is indifferent to the results, whether given hypodermically or *per os*. It was also shown that lecithin

can be administered without ill effects for many months.

It was questioned whether lecithin may not have an injurious, fixing, or retaining effect on poisonous remedies, and experiments with strychnine and with potassium cyanide on both animals and humans established the negative. Lecithin was shown to increase the resistance and volume of red corpuscles of the blood, and to benefit the other constituents of the blood.

The general testimony is in favor of lecithin in cases of debility, as a powerful restorer of the appetite and as an increaser of the bodily weight. Lancereaux reports two cases of pancreatic diabetes in an advance stage of the disease, failing more and more every day in spite of all medications. On the administration of fifty centigrams (gr. 8 1-3) daily their emaciation ceased, they gained in weight rapidly, general condition ameliorated.

Another case he reports is that of a young man, eighteen years of age, affected with osseous tuberculosis and amyloid degeneration of the kidneys and abundant albuminuria, who took 0.3 (gr. 4 1-2) lecithin daily for fifteen days, and gained three kilograms (about 7 pounds).

Another case was that of a child ten years old, very thin, having evening fevers, and cough, took 0.2 (gr. 3) of lecithin daily and gained five and two-fifths pounds of weight. Another child with bronchopneumonia, very thin, gained the same in weight on the same dose.

Huchard tried lecithin on chlorotics, dyspeptics, patients with gastric ulcer, and one case with Parkinson's disease (paralysis agitans), who after an attack of bronchitis was in a precarious condition. The general results in all these were the same, viz., increase of bodily weight, return of strength, and general improved condition.

Carriere gave lecithin to children in normal conditions and observed in all of them, compared with children who did not take the medicament, an increase of stature. There was an increase of the red corpuscles, the hematoblasts, and leucocytes. In the urine there was an increase of the urea; the nitrogen total also increased; the phosphoric acid first decreased and then became normal. There was no change in the sulphates.

Narbel of Lausanne tried lecithin on a number of children suffering from malnutrition to a degree which seemed desperate. He saw them under the influence of this remedy to greatly improve in the functions of the alimentary canal: the stools decreased in number and their consistency increased and became normal; the appetite increased with the improved assimilation. Narbel gave the medicament hypodermically, a cubic centimeter every two days.

In tuberculous patients Gilbert and Fournir noticed from lecithin an increase of appetite and of bodily weight, a decrease of the cough and expectoration and of the bacilli in them.

Claude and Ali-Zaky say, that while lecithin does not cut short tuberculosis directly, it yet modifies very happily the patient's appetite, increases his bodily weight perceptibly, the metabolism becomes active, and the elimination of phosphorus diminishes considerably.

In the first and second stages of tuberculosis lecithin markedly diminishes the elimnation of phosphorus and increases the bodily weight, but does not do these in the third stage of the disease.

The following points are a resume of recent experiences with lecithin:

1. Lecithin as an organic phosphorus body assists nutrition powerfully by a constant diminution of the elimination of phosphorus from the body.

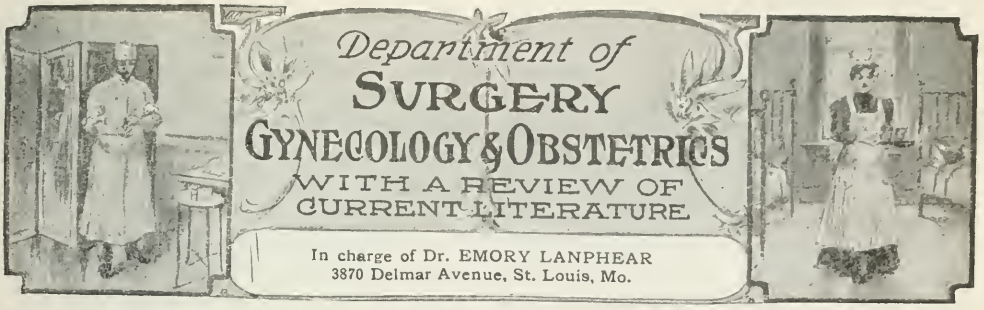
2. Lecithin is non-toxic, and perfectly assimilable.

3. The best form of administration is, perhaps, that of lecithinized milk.

4. Lecithin is a powerful bioplastic and morphogenous agent modifying importantly the organic changes of the organism.

5. Lecithin is indicated in all diseases where defective nutrition is a feature.

6. In tuberculosis lecithin must be regarded as a most valuable adjuvant, which acts in some specific way against the loss of the phosphates from the body.



THE TECHNIC OF SKIN GRAFTING

The Thiersch method and its most recent modifications, especially as regards the subsequent treatment by screening

By ERNEST LAPLACE, M.D., LL.D., Philadelphia, Pa.
Profes or of Surgery, Medico-Chirurgical College o Philadelphia

THE introduction of skin-grafting by Reverdin, by transplanting bits of epithelium to granulating wounds, marked a great step in the successful healing of wounds. Thiersch shortened the work by supplying grafts of sufficient size to cover the whole wound, thereby requiring but little time to completely heal the wound.

At first grafts were passed through various solutions before being applied to the raw surface; it was thought that the surface itself must be free from granulations; that an impermeable protective membrane should be directly applied to the grafts to maintain them in position, and insure the spreading of the grafts. This technic was generally adopted, though often found imperfect, owing to frequent suppuration and loss of grafts. Whenever grafts fail to grow by Thiersch's method, suppuration is the cause; pus develops under the protective membrane lifting the graft from the underlying surface, and practically destroys its vitality.

Wise to Imitate Nature's Method

It seemed all important to devise some means whereby the unnecessary secretions be diminished or absorbed, and whereby the graft would be allowed to retain its position,—even if superficial infection still existed in the wound. For this purpose we thought it well to imitate Nature's own process of healing by scabbing, where epithelium spreads from the side of the wound under a protecting scab, which is simply the result of evaporated serum.

This method of healing by scabbing is different from that sought by Thiersch.

I proceeded to eliminate the protective impermeable membrane, and covered the grafted surfaces with many layers of gauze, so that the secretions might be absorbed into the gauze. This answered in many cases, but not in all; inasmuch as the serum absorbed into the gauze soon became impermeable, and practically acted as a membrane would have done.

Realizing the necessity of applying something to the grafted surface to maintain the graft in position, I applied but one layer of gauze to the wound, and covered the wound separately with other layers of gauze, which were removable without disturbing the first layer, when it became necessary to dress the wound. Through this single layer of gauze left behind, it was possible to clean the wound with an antiseptic solution, preferably with H_2O_2.

This procedure led me to adopt the present technic, which, I believe, conforms as nearly as possible to Nature's own purposes. The wound having reached a sufficient granulating condition, is treated with a one per cent solution of picric acid for a day or two, and then assumes a thoroughly healthy red and dry condition. Grafts are then transplanted to it, covering it completely after Thiersch's method. A single layer of gauze is now applied carefully over the parts, projecting about an inch beyond the granulatiug surface. It is maintained in position by plaster straps over the edges —framing the wound as it were. This gauze protects the wound, but does not interfere in the least with the evaporation of the serum, which must necessarily exude from the surface. As a result, a little scab forms about the edges of the grafts, no secretion results, and the grafts adhere and take root in the granulating surface. Care must be taken, however, that nothing comes in contact with the surface for fear of dislodging the grafts.

A shield must be improvised of such size and construction as to prevent any possibility of the sheet or binder touching the affected parts.

It is remarkable how little secretion takes place under these circumstances; and therefore, how little the development of the growth of the graft is interfered with.

Our success has been uniform by this procedure, which is simplicity itself, and agrees in every way with Nature's method of healing by scabbing. It does away with the complicated technical process proposed by Thiersch, which often meets with failure on account of suppuration.

The present method is simply that of screening the grafts with one layer of gauze —allowing thereby free evaporation of serum, and the cleansing of the parts.

PROLAPSE OF THE UTERUS

Technic of the most satisfactory method of operative treatment; a clinical report, with a brief outline of the other good operations

By FRANKLIN H. MARTIN, M.D., Chicago, Illinois
Professor of Gynecology in the Post-Graduate Medical School

THE case of prolapse of the uterus here presented is one typical of a number of cases recently operated on at the Post-Graduate Hospital and the Woman's Hospital of Chicago, in which a somewhat new but effective method of operating has been carried out.

Figure 1 is a drawing made of that case, and it represents a typical procidentia of the third degree. The entire uterus is external to the vulva. It is possible to bring the fingers, pressing from behind and in front together, above the fundus outside of the external genitals. Of course, the anterior and posterior vaginal walls are completely everted when the uterus is lying outside of the pelvis. The uterus can be replaced, with comfort and ease into the pelvis. It is then seen that the rectovaginal septum or perineum is lacerated to the sphincter ani and the anterior and posterior vaginal walls are much hypertrophied. The uterus too is hypertrophied so that the length of the organ is four inches.

In the case shown in the drawing (Fig. 1) the hypertrophy is entirely in the cervix, the fundus being the subject of senile atrophy. On the left of the cervix is an excoriation. The epithelium on the cervix and the lower portion of the vaginal mucous membrane is changed in character resembling the epidermis from its exposure and friction on clothing and the patient's thighs from its frequent external position.

The patient is in the habit of replacing this prolapsed mass every night on retiring and it remains in place until she attempts to work the next day in a standing position, when it gradually extrudes, until at night, after a day's work, it is entirely outside of the vulva.

Operative Treatment

Ever since the beginning of medicine and surgery, this condition has been the source of much study and practice on the part of practicians. Like all conditions having many forms of treatment in vogue for it, none has been entirely satisfactory. In mechanical appliances, it has been subject to tampons, vaginal pessaries of many varieties, and vaginal stems with cervical cups with the stems supported by external harness. None of these has proved more than an alleviation and none of them is a cure.

In a recent article (*Surgery, Gynecology and Obstetrics*, February, 1907) I have recited the various operations for the cure of prolapse of the uterus that have been in vogue from time to time and have explained their main principles. Briefly, they are in three stages:

1. The attempt to prevent the uterus prolapsing by repairing the recto-vaginal septum and narrowing the external orifice of the vulva.

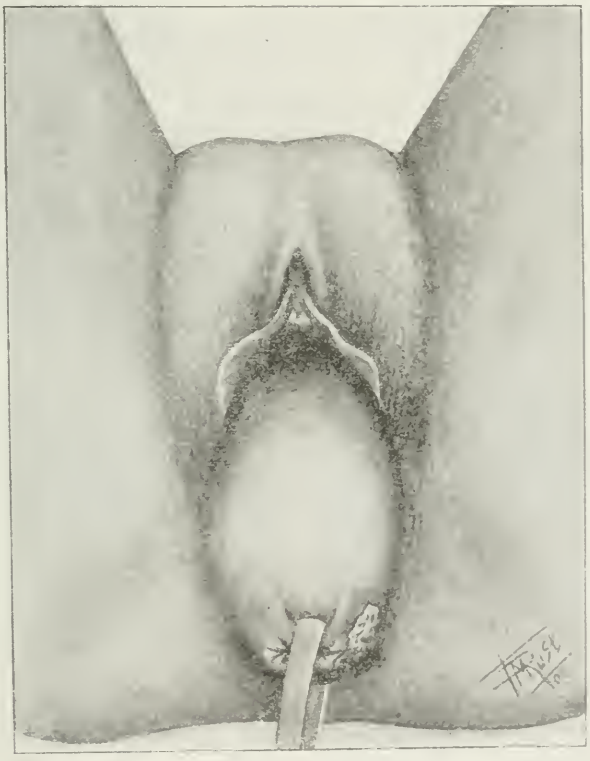


Fig. 1. A typical case of procidentia of the third degree. Hypertrophy entirely in the cervix.

2. By restoring the vaginal orifice and narrowing the anterior vaginal wall, and amputating a long cervix.

3. By transference of the dependence for success from the supports of the perineum and vaginal outlet, to the ligaments of the prolapsing uterus itself and reinforcing the ligamentous supports by restoring the perineum and normal vaginal contour.

It is on this latter chain of procedures that I have depended with most gratifying

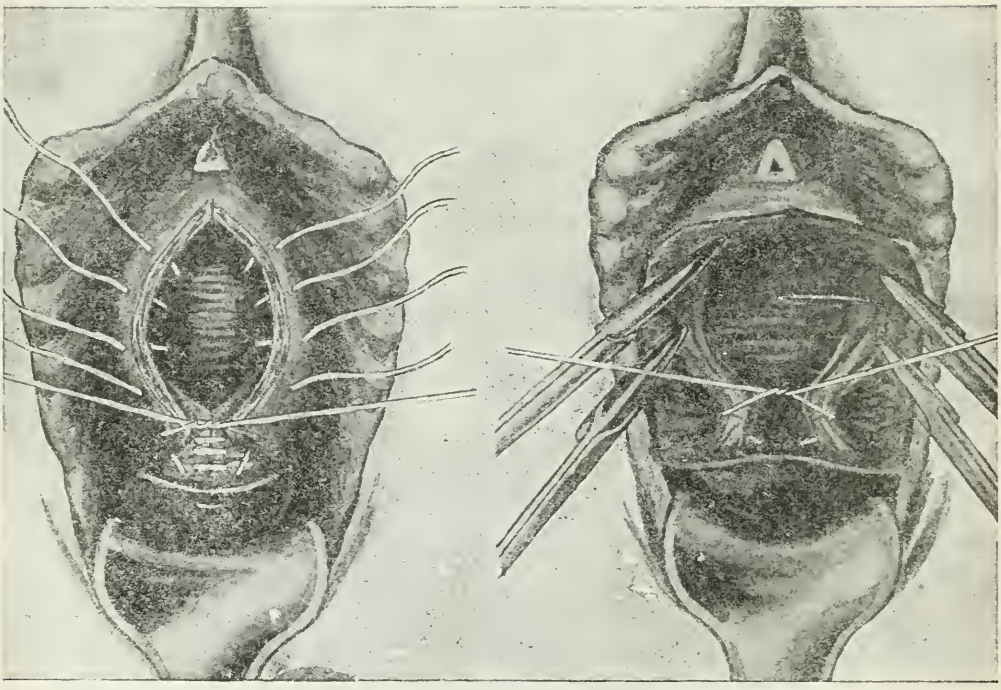


Fig. 2. The Dudley Operation

success in my recent cases. If the woman is still in the child-bearing age, the following procedure is carried out:

a. The anterior vaginal wall is incised and the front part of the uterus is exposed by carefully dissecting free the bladder, exposing the front of the uterus and the broad ligaments.

b. The bases of the broad ligaments are folded in front of the uterus to such an extent as to deprive them of their slack (Fig. 2) and the folded portions are mattressed together in front of the uterus in such a way as to hold the uterus high in the pelvis and push the cervix back to the hollow of the sacrum.

c. If the cervix is long it should be amputated.

d. The hypertrophied anterior vaginal wall is narrowed, if necessary, by removing longitudinal strips from the sides of the preliminary incision in the anterior vaginal wall and uniting the edges of the incised portions over the elliptical space between them.

e. Restoration of the perineum by a flapsplitting operation which slides upward the posterior vaginal wall and lengthens it.

If the woman has passed the childbearing period, there are three procedures which have stood the test:

1. The operation described by Watkins and Wertheim. This consists in:

a. Incising the anterior vaginal wall longitudinally and delivering the fundus of the uterus into the vagina after separating and pushing the bladder upward from the vaginal wall. (Fig. 3)

b. The fundus of the uterus is then laid in the space below the bladder, and the anterior vaginal wall is closed over it.

c. Repair work upon the vagina and perineum is done as in the previous operation.

2. Vaginal hysterectomy and uniting the broad, round and sacrouterine ligaments together and to the upper end of the vagina.

a. The vaginal vault is severed from the cervix and a longitudinal incision is made through the anterior vaginal wall, the bladder is separated and the peritoneum opened between the bladder and the uterus.

b. The uterus is delivered and the broad ligaments and round ligaments are secured

with ligatures, temporarily clamped with long, crushing forceps, and then the uterus is severed and delivered.

c. The ligaments are drawn taut to the top of the vagina and crossed upon each other, sewed together and then to the top of the vagina.

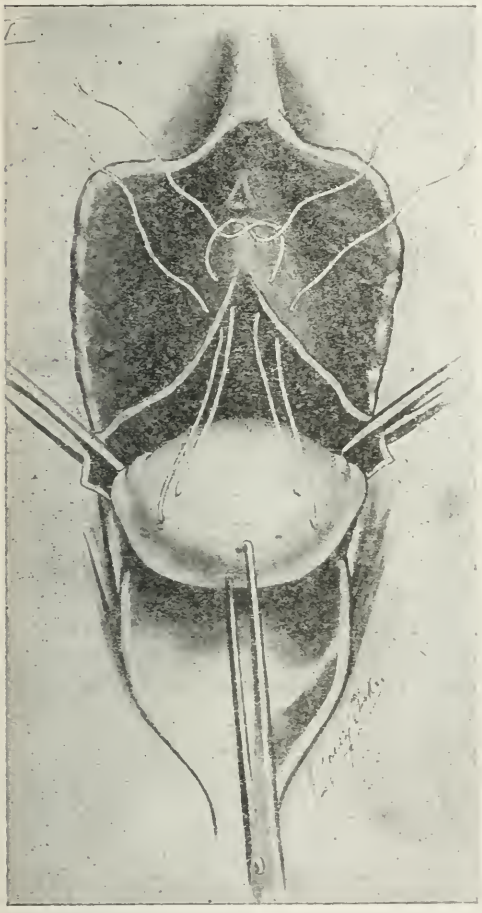


Fig. 3. The Watkins-Westheim Operation

d. The vagina is closed and the usual repairs are made on the vagina and the perineum.

3. Vaginal hysterectomy with retention of the cervix as a central support for the broad, round and sacrouterine ligaments:

a. The vaginal vault is severed anterior to the cervix only, and a longitudinal incision is made in the anterior vaginal wall, the bladder is separated and pushed up, and the peritoneum opened between the bladder and uterus.

b. The uterus is delivered, and the tops of the broad ligaments at the infundibuliform ligament and the round ligaments are ligated and then clamped with strong crushing forceps.

c. The broad ligaments and round ligaments are severed down to the base of the broad ligaments and the uterine arteries are then ligated; and the uterus is severed at the cervix and delivered.

d. The severed ligaments are drawn taut across and mattressed together with sutures and then sewed to the top raw surface of the cervix at the point that it was severed from the uterus; (Fig. 4) the folds of the peritonium containing the sacrouterine ligaments are united tautly to the edge of the cervix, the whole cervix on its abdominal surface is finally covered with peritonum, and it

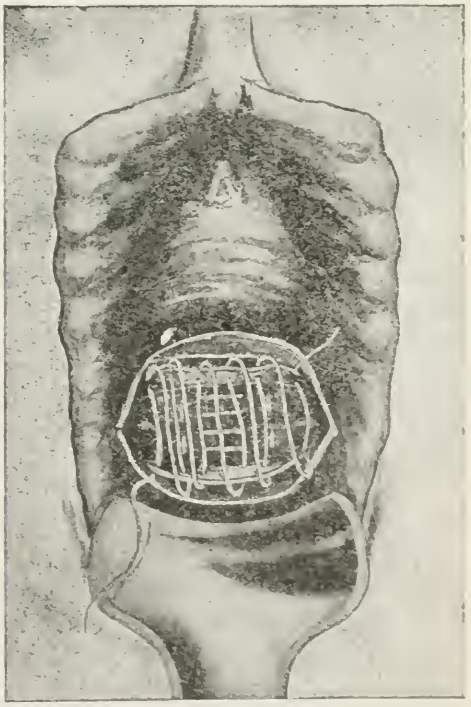


Fig. 4. Sewing ligaments to cervix after Hysterectomy

is thus released, when it will be drawn high into the pelvis.

e. The anterior vaginal incisions are closed.

f. The perineum is carefully closed, with due care to elevate the posterior vaginal wall in such a manner as to lengthen that wall and allow the cervix to ride high in the pelvis. (Fig. 5)

Some Comments

The four procedures I have briefly outlined will cover almost every complication

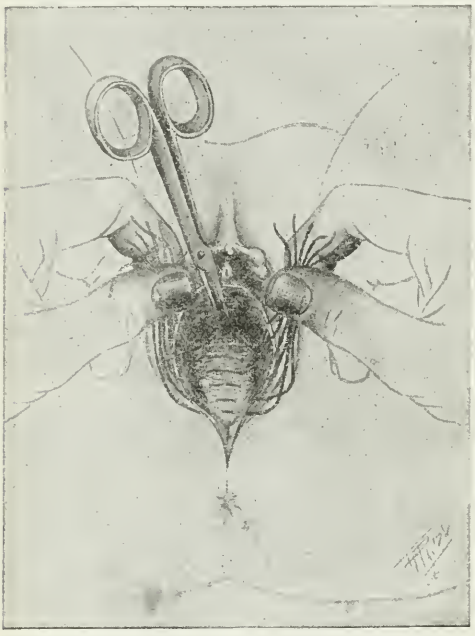


Fig. 5. Repair of perineum

which may arise in this common difficulty. When one appreciates the value of the three sets of ligaments for supporting the key of the situation, viz: *the top of the vagina*, two-thirds of the fight for supporting a prolapsed uterus with its frequently attendant complications of prolapsed bladder, cystocele and rectocele, are won. The top of the broad ligaments and round ligaments when shortened, made taut, and sewed together, and then to the top of the vagina or to the cervix or anterior to the uterus, of necessity draw the vagina high into the pelvis.

In the cases where the uterus is removed, the shortening of the sacrouterine folds insures the retention of the top of the vagina or cervix well back in the hollow of the sacrum.

Supplementing, finally, the above procedures with appropriate vaginal work including the elevation and repair of the perineum, makes an operation which is practically ideal.

The case shown in figure 1 is one in which the uterus with the exception of the cervix was removed and appropriate work, as described in this article, was performed on the vagina and perineum. A typical result in operations of this kind was obtained. The cervix is maintained extremely high in the pelvis and extremely well back, and consequently the vaginal tube is taut and without any tendency to sag. It is with great difficulty that the cervix can be reached by a digital examination. The perineum and vulva are as nearly normal as they can well be in an old woman. The patient is absolutely free from symptoms and is delighted with the result.

There is, probably, no work that a gynecologist is called upon to do that is more gratifying in its results than the successful relief of a complete prolapse of the uterus.

IF you would be a man, speak what you think today in words as hard as cannon balls, and tomorrow speak what tomorrow thinks in hard words again, though it contradict everything you said today.—R. W. Emerson.

HOW TO GIVE CHLOROFORM

The methods which have proven safest in many thousand anesthesias; apparatus to be used; the technic of administration; accidents, how to avoid and how to treat them

By EMORY LANPHEAR, M.D., Ph.D., LL.D., St. Louis, Mo.
Chief Surgeon of the Woman's Hospital

SO few doctors, even recent graduates who have served as internes in the great hospitals, know how to give chloroform properly (i. e. safely) that the following should be read at least *twice* by every doctor; and once again by him who thinks *he* knows how! It is the method which has proven safest as demonstrated in many thousands of anesthesias; violation of the rules is what leads to the occasional death of a patient.

There are four chief things to be constantly borne in mind by the anesthetist:

1. To watch the patient, not the operator.

2. To keep an eagle eye upon the respiration; the pulse is of only secondary importance.

3. To begin administration quietly and slowly; more than ninety per cent of all deaths occur during the first few inhalations of the vapor.

4. To carry the patient quickly to profound anesthesia, and then keep him unconscious with the slightest possible amount of chloroform.

Apparatus to be Used

The only safe way to give chloroform is by means of a dropper and an Esmarch inhaler, or some modification of them.

a. The Bottle.—Any bottle will do which has a mouth small enough to fit the cork; but it should never be more than half full at time of using. The 100-gram bottle in which chloroform now is sold is the best.

b. The Dropper.—With the regular Esmarch apparatus there comes a cork with metal dropper.

There are two objections to this dropper: (1) It allows chloroform to escape too freely, particularly at a moment when but little is wanted, and (2) often it is not at hand when wanted.

A far more satisfactory dropper can be manufactured at the bedside in two minutes with a sharp knife, a cork and a little bit of cotton. A cork which fits the neck of the bottle to be used is grooved from end

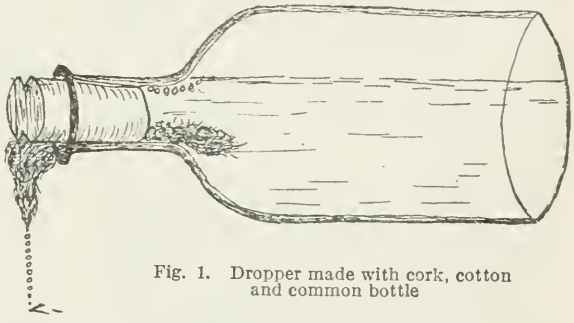


Fig. 1. Dropper made with cork, cotton and common bottle

to end on two sides, the groove being made less than a sixteenth of an inch deep; a little of the cotton is laid in one groove so that it extends beyond each end of the cork; and the cork and cotton are inserted snugly in the bottle half filled with chloroform. When turned from the upright to the horizontal, this dropper will give down chloroform in minute drops, about one-fourth the size of those from the Esmarch.

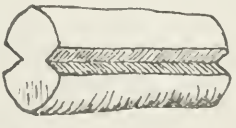


Fig. 2. Cork cut to make a dropper

c. The Mask.—Two thicknesses of gauze stretched over a wire frame constitute the receiver of the chloroform. It must not be permitted to touch the face until the patient is profoundly asleep; then it

may be allowed to rest gently over the nose and mouth.

Cotton should never be put in the concavity of this mask, nor should more than four thicknesses of gauze be used—patients must have at least 95 per cent of air (i. e. never more than 5 per cent of chloroform vapor) at any stage of an anesthesia.

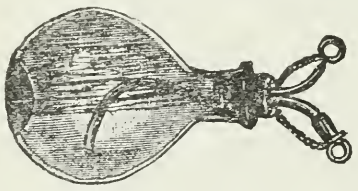


Fig. 3. Patent drop bottle

When a mask is not at hand one may be improvised very effectively by taking a towel, stiff with starch if possible, and making a cup-shaped "pucker" in one side of it, as shown in the cut.

This may be placed over the patient's mouth and nose and the chloroform dropped upon it.

Method of Administration.

The patient being in the position desired for operation is told to close the eyes and go quietly to sleep. *He should never be told to breathe deeply.* Nor should he be requested to count—both tend to excite the patient's fears and disturb his tranquillity. The only directions should be: "Try to go to sleep," "keep your eyes closed," and "don't mind the smell at the beginning." Especial care should be used not to say, "Don't mind the smothering sensation"—that is sure to cause anxiety; and it is fear which kills at the beginning of anesthesia. The eyes should be covered by a towel.

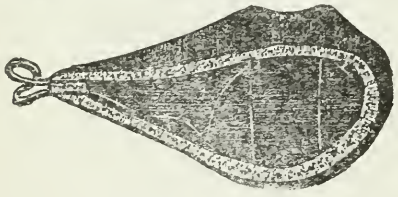


Fig. 4. Esmarch Inhaler

The mask being placed over the nose two or three inspirations should be permitted without any chloroform; then a single drop—or two, never more—is allowed to fall on the top of the mask and the patient asked pleasantly if he likes the smell, with the assurance that the chloroform will not be given too strong. After two or three inhalations of this very mild vapor, five or ten drops are to be poured on and the mask slowly lowered to within a half inch of the face; when the patient has breathed this stronger vapor three or four times the amount may be quite rapidly increased, so that within two minutes after beginning the anesthesia its administration should be under full headway if the patient behave properly; if he be excitable a little longer may be required. At the end of two or three minutes the rate of dropping should be about *two per second*, the drops being made to fall in a circle near the margin of the mask. *There should be no intermission in this dropping* (if the patient be breathing regularly and easily) *until the patient is fully under the influence.* The man who stops to set the bottle down on the table, before the patient is unconscious, is a dangerous anesthetist—the only exception being when the patient does not breathe well.

Fig. 5. Emergency Mask

At a certain point in the process of anesthetization (where the "stage of excitement" is said to begin) the patient is very apt to hold his breath, and the inexperienced anesthetist becomes uneasy or even alarmed; but all that is necessary to do is to remove the mask, *gently* press on the lower end of the sternum, with the sharp command, "go on breathing," and allow two or three

breaths of air; then as soon as respiration is regular go on with the dropping. If any time is lost at this point the patient may become very much excited (especially if addicted to alcohol), but if just enough chloroform be given the "stage of excitement" may usually be entirely avoided.

After a few more breaths the patient may try to vomit, but unless something actually comes up into the throat (in which case the throat must be quickly cleaned out) no attention need be paid to this as a few more drops of chloroform will put a stop to it.

In three minutes a quiet patient should be put into perfect surgical anesthesia; an excitable one inside of five. The doctor who requires ten to fifteen minutes to chloroform a patient is not a safe anesthetist.

As soon as the operation is begun the amount of chloroform may be diminished; the pulse examined, so determining that the heart is right; and the pupil looked at to see if it be properly contracted. At an early stage of chloroform inhalation the pupil becomes dilated for a minute or two, but as soon as anesthesia is complete it is contracted slightly beyond normal and should remain so to the end; secondary dilation means too much chloroform—so the pupil should be frequently inspected during the later stages of the work. *But no man should stick his finger in the eye to see if the conjunctival reflex is abolished.*

During the progress of the work from five to twenty drops per minute will be required to keep the patient asleep. As there are rather more than 120 drops to the fluid dram about one ounce should suffice for a full hour's profound anesthesia; and some patients require less than half this amount; if two doses of hyoscine-morphine-cactin compound have been given before operation one dram will be an abundance. Just enough should be used to keep the patient from moving; he should never be permitted to wake up enough to feel the pain.

Accidents: How to Handle Them

1. The most common accident is "swallowing the tongue." When this occurs (always after complete anesthesia) bottle and mask must be laid aside and the chin of patient raised by placing a thumb on each side of the face above the angle of the jaw and three fingers on the neck below the angle, when by pulling upward and forward the larynx will be straightened and the tongue drawn forward out of the pharynx. *The man who wants to use a tongue-forceps is one never worthy of trust as an anesthetist.* In extreme cases a finger wrapped with gauze may have to be inserted into the throat to unroll the tongue; but it should not be once in a thousand cases; in all others elevation of of the jaw is all that is needed.

2. Cessation of respiration is the most dangerous of all accidents. If too much chloroform be given the patient turns livid (from imperfect oxidization of the blood) and finally he ceases breathing. Artificial respiration must at once be instituted, and if voluntary respiration is not begun within two or three minutes the head should be lowered and the angle of the jaw raised again while artificial breathing is continued. Usually respiration will be restored in a minute or two though sometimes ten to twenty are required; and as much as forty have been required in extreme cases. So in fatal cases not less than an hour's work is permissible. As soon as respirations are regular and the color is good a small amount of chloroform may be given, but usually only a little will be required.

3. Vomiting is sometimes troublesome if the patient has eaten within eight hours of the operation. When the stomacht contents come up into the throat the head should be turned to one side to permit ejection and the chloroform stopped for a moment until the throat can be cleared. A piece of gauze or corner of a soft towel may be used to wipe out the mouth and even the pharynx when necessary. As soon as two or three full breaths have been taken by the patient, dropping should be resumed.

4. Heart-failure is an accident not likely to occur if the respiration continue good,

unless there has been excessive loss of blood or prolonged exposure of viscera. When the pulse becomes weak or wavers greatly an injection of a pint of normal salt solution (a teaspoonful of salt to the quart of water, boiled and allowed to cool) should be made into each breast or each buttock. While this is being done 1-100 grain of glonoin (nitroglycerin) should be injected in the arm or neck; or if death seems dangerously near three or four syringefuls of sulphuric ether may be injected—but never unless the situation is urgent. The salt solution does best. Of course the anesthetic is to be discontinued during these manipulations.

ANESTHESIA FROM LUMBAR PUNCTURE

The use of tropococaine as an anesthetic, employed by lumbar puncture. How to prepare the solutions, the technic to be followed, the indications and contraindications

By VIRGIL McCOMBS, M. D., Almota, Washington

SURGICAL anesthesia by introduction of tropococaine by lumbar puncture is being advocated by many, and is giving satisfaction thus far. The method of using the drug is therefore worthy of description.

Tropococaine is somewhat expensive, costing about 40 cents for a 5-grain vial or $40 to $42 per ounce. The Wakefield Drug Co. of San Francisco has put up some for me in 3-4 and 1 grain sealed glass tubes and I have lately used ordinary empty hypodermic tubes. These tubes are thoroughly cleansed, also the corks, and dried, 2-3, 3-4 or 1 grain are put into tubes and the temperature raised to 230° to 250° F. Over 290° F. will liquify the preparation and render it inert. The cork ends of the vials are dipped in melted paraffin, after cork has been inserted, and tube laid away for future use.

The syringe employed is a Luer, all glass with graduated barrel, capacity 25 minims. The needles are three inches long, have a pointed tip and dull edge, thus separating the tissues and not cutting out a plug. The needle connects with the syringe by a joint.

The needles with rammers are thoroughly boiled, also the syringe, the piston being removed from barrel. Dip the tube or vial containing the tropococaine in an antiseptic solution and dry with sterile gauze. Break tube or remove cork and roll the powdered tropococaine into the bottom of the barrel. Slowly introduce the piston, being careful not to blow the powder out of the end of the barrel.

How to Locate the Point of Puncture.

The syringe is laid within easy reach of the right hand. The patient's pulse, being taken, will register from 80 to 100 from mental anxiety and fear of operation. The lumbar region is cleaned and the third or fourth lumbar intervertebral space located. This is done by having patient flex and extend the trunk, while the finger locates the dimple or depression below the tip of the spine. In lean patients this is quite easy. In fleshy patients stretch the edge of a towel from the highest points of the crests of the ilia; the fourth interspace is on this line. Now have the patient lie on the side and flex the spine, or better still have him sit on edge of operating table and bend forward until the folded, flexed elbows rest upon his knees, arching his spine. If he does not arch the spine an assistant may press backwards on his abdomen; this procedure widens the interspace between the vertebræ to its

greatest extent and serves to insure the success of the operation.

Making the Injection

Now with the exact spot located, allay the patient's fears by telling him you are only going to stick him with a needle, and not to jump or jerk. The operator kneels on the opposite side of the table, his left index finger on the intervertebral depression, below the spine of the fourth vertebra in the mid-line, not to one side, with the needle in the right hand and at right angles to the skin surface. Make slow but firm pressure on the needle to press it through the thick skin. If bone is struck the resistance is decided and the needle must be slightly withdrawn, and direction changed. If the intervertebral space is entered, the needle imparts to the hand a peculiar cartilaginous crepitus, followed by lessened resistance as the needle enters the spinal canal, and clear fluid appears at the needle end. Quickly place left index finger over needle end, to prevent the escape of any fluid, and attach syringe by means of joint. Gently pull out the piston until spinal fluid fills the barrel to the 8 or 15 minims mark and by turning the syringe two or three revolutions, the tropococaine will quickly dissolve in the spinal fluid. Now press the piston clear in, tell the patient to straighten up his back and as he does so remove the syringe and needle. The skin puncture is covered by cotton and collodion.

The patient can now be prepared for the operation, and by the time he is washed up anesthesia will be complete; in from two to five minutes for operations below the diaphragm and three to fifteen above, and will continue for one and one-quarter to three hours.

In operations above the diaphragm injection must be made at the second interspace, using 1 to 1 1-4 grain and after the tropococaine is dissolved in the spinal fluid inject it rapidly by pressing the piston with force. For lower operations about the bladder or rectum a dose of 3-4 or 1 grain is best.

During the operation the patient's pulse usually drops to about 80 and becomes strong and regular. Should, however, the pulse become weak or the patient sweat 1-100 grain atropine may be given, or one or two ounces whisky by mouth will suffice. From time to time one may ask the patient how he feels, and he may take a drink of hot water if feeling cold, or cold water if feeling warm or sweaty, and so keep the operator informed as to his condition.

Anesthesia is complete and any operation may be done. Only the sensations of pain and temperature, however, are destroyed, the pressure and muscular sense being unaffected. For example, the patient can feel the pressure of a hand against him or as one seizes a group of muscles but he cannot feel cutting or crushing instruments. He is able to walk (though this is not advisable), can flex or extend his limb at command, and so assist the operator if necessary; he has perfect control of his higher mental faculties, can answer questions intelligently or make statements which might be of value to both patient and physician.

Contraindications to Tropococaine

The contraindications for the use of tropococaine are few and of small importance; the greatest being its use in very nervous or hysterical patients—where the realization of the fact that they are being operated upon often does harm.

It is indicated in all cases where ether or chloroform may be used, and in those cases of extreme weakness in which the effects of either might prove fatal, and in operations about the nose or throat the patient can spit out the blood from time to time and so lessen the chances of inpiration pneumonia.

Personally I have never had a failure of anesthesia in 48 cases; have never had any untoward symptoms; have never had any serious after-effects; have only once had any trouble of entering the spinal canal, and that when I first began its use. By having the patient arch his back no trouble

ought to be found in introducing the needle. I have had but three cases of severe headache, one lasting six hours, the other about eight hours. In the last case the patient coughed as the needle entered the canal and several drops of spinal fluid were lost. The third case happened last week. I did a curetment following an incomplete abortion, the patient complaining of a terrible headache before operation (also fever and rapid pulse), and the headache persisted for three days. I have never had a single case of vomiting and many cases were operated upon shortly after a full meal, as the men were engaged in railroad construction work.

PARTIAL ANESTHESIA FROM HYOSCINE

A report of an experience with sixty-six cases in which hyoscine and morphine were used prior to the administration of chloroform, for the production of general anesthesia

By C. P. FARNSWORTH, M. D., Madison, Wisconsin

IN modern surgery the anesthetic usually gives the surgeon more concern during the operation, and causes the patient more trouble than the operation. For various reasons ether has been the most commonly employed anesthetic; from the fact that it does not depress the heart as chloroform does it is much the safer anesthetic. Ether does, however, irritate the mucous membrane of the air passages, and in prolonged operations there is more or less gastritis due to its inhalation. There is also often distention of the bowel from gas which seems to be generated during its use, and not infrequently we have an irritation of the bladder due to the excretion of the ether from the kidneys, to say nothing of nausea and vomiting.

These results give every surgeon more or less concern about his patient after an operation, and not infrequently cause a great deal of distress to the patient and sometimes death due to the gastritis or nephritis which may have been set up by the use of the anesthetic.

Chloroform, while perhaps it does not irritate the kidneys like ether, does cause the patient more or less gastritis, is depressing to the heart, irritates the mucous membrane of the air passages, and causes nausea.

In giving a general anesthetic, especially ether, many times the anesthetizer has to swab out the patient's throat in order to relieve him from the large amounts of mucus collecting there. As soon as the patient is out from under the anesthetic large amounts of bile and mucus are vomited from the stomach, which continues more or less for from one to three days. This has been obviated greatly in my practice by the giving of a lavage before the patient comes out from under the anesthetic, but this takes some time and it is not always satisfactory. Sometimes the drinking of large amounts of hot water before the operation will prevent, to a greater or lesser extent, the vomiting. During the operation, if the patient should partially come out from under the anesthetic, there is immediately a great retching and straining, and if the surgeon is performing a laparotomy he has about all he can do to keep the abdominal contents from escaping.

However, under old methods these unpleasant features have to be borne with and the surgeon is happy that he has at his command an anesthetic, even with these objections, that will keep the patient from realizing pain and quiet while the operation is being performed.

The writer while attending an operation being performed by Dr. Emil Ries, in the Post-Graduate Hospital of Chicago, a little over a year ago, noticed that the patient

received little or no anesthetic, while undergoing a serious operation. In answer to a question, Dr. Ries kindly explained that the patient was anesthetized by a new method, with scopolamine and morphine hypodermically injected. Since then, having looked up the literature and finding that there had been some thousands of anesthetics produced in this manner in Europe, and hearing the method spoken well of in Chicago, I determined to make a trial of the measure.

Pure Hyoscine Instead of Impure Scopolamine

Before this was done, however, the wisdom of using pure hyoscine instead of scopolamine, a mixed alkaloid, having been suggested by Abbott and demonstrated by Lanphear and others, I adopted that instead. I procured pure hyoscine hydrobromide in 1-100 grain tablets, with morphine, grain 1-4, and began experimentation. As this was a new drug we did not care to place our patients under the influence of it altogether, but thought we could give a partial dose and finish the anesthesia with ether as we had done heretofore. So combining 1-100 grain of the hyoscine hydrobromide with 1-4 grain of morphine sulphate, we gave this as an hypodermic injection one hour before we expected to begin our regular anesthetic. The patient was drowsy at the time we wished to start the anesthetic, but was not entirely under the influence of the drug. In about five minutes, a much shorter time than usual, the patient was thoroughly under the anesthetic from the ether and the operation was performed. There was no irritation of the respiratory passages, and after the patient was placed in bed and the ordinary measures taken to protect from cold a normal saline enema of about one pint was given, which was retained. The patient came out from under the anesthetic in the course of half an hour's time, and wished to know when she was going to have the operation. We told her it was all over with; then she went to sleep, slept two or three hours and awoke with no signs of vomiting or gastric irritation whatever.

There was no irritation of the bladder after the operation, and the patient got along so well that we determined to try the same combination still further, which we have continued to do up to the present time, sixty-six cases in all, sixty-three of these being laparotomies.

I have noticed, by reports in various medical journals, that complete anesthesia is sought by a majority of surgeons by the hyoscine-morphine method, but this has not been my plan, being anxious to give no more of these drugs than necessary to allay the irritation which we encounter in giving the ether alone.

In all our women-patients we have had only three cases that vomited at all, and these only a few times. In giving this combination to men we did not at first get the results that we did in giving it to women, as they seem to take nearly as much ether as they would if we had not given it at all. We believe that if a dose of 1-150 grain of hyoscine hydrobromide combined with 1-6 grain of morphine sulphate were given two hours before the time of operation, and the dose repeated one hour later, in the case of strong vigorous men who have lead an outdoor life, that practically the same state of semi-anesthesia would be reached before the patient need be given the ether. We have found many cases that did not take more than two to four drams of ether to carry them through half to three-quarters of an hour of surgical work.

Benefits of Hyoscine-Morphine Method

The benefits derived from the use of this combination are: (1) simplicity and facility of administering; (2) lessening of mucous secretion and irritation of the respiratory tract; (3) greatly lessened amount of or complete absence of nausea and vomiting; (4) the absence of the large amounts of gas which are generated in the intestinal tract following the ordinary ether anesthetization, which gives so much pain to the patient and so much work for the nurse; (5) the greatly lessened amount of ether required reduces the amount of renal irritation and cystitis which follows in a large number of

cases of ether anesthetization; (6) the comparative ease and comfort which the patient experiences for from one to four or five hours following the operation, which is usually the period of extreme agony; (7) the patient is not nervous and excitable and usually does not struggle at the beginning of the anesthetic which is an advantage sometimes in the case of nervous, excitable persons.

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The above report is interesting, the writer in his experience having pursued a different course than many do. Instead of producing complete surgical anesthesia, as he might well have done with larger doses in practically all of his cases, he has obtunded sensibility, used ether or chloroform, and thus in a great measure derived the benefits obtainable from this compound such as freedom from shock, nausea, etc. It is our opinion, however, that as his experience widens he will put less dependence on chloroform and ether and more on the hypodermic anesthetic. We hope to hear from him further.—Ed.

CURE OF FATTY TUMOR WITHOUT EXCISION

A simple and satisfactory method of treating simple lipomata when operative interference is refused. Report of two cases

By WINNIE M. SANGER, M.D., Oklahoma City, Oklahoma

PERMIT me to report two cases that may keep some brother out of difficulty by enabling him to cure without surgical intervention, when there are objections to the use of the knife.

Case 1. Mrs. C., age 44, good health, except jaundice for a few weeks last spring, soon after which she reported a tumor starting in space between scapula and spine. An examination a few weeks later showed a fibrolipoma growing rather rapidly, but patient did not want it removed until cold weather. Removed Nov. 1. Weight 1-4 pound. Wound healed perfectly without suppuration. No return.

I report another case to contrast surgical with medical treatment.

Case 2. Mr. B., traveling man, perfect health. Reported a tumor at about opening of Steno's duct; not hard, just beneath mucous membrane, about the size of three cubic centimeters, slightly movable, sometimes painful and he feared malignancy. I first tried "betulol" locally and a course of iodides internally.

After several weeks there was no apparent result—except a change of locality from the inside of the mouth to outside—or just under the skin at angle of jaw; tumor was larger, not painful—but movable somewhat. These facts, together with the fact that there were two other lipomas—one on forearm and one on the back—made me feel certain that the tumor was a lipoma, not harmful but disfiguring.

I applied ointment of biniodide of mercury and dissipated it by using a poker at white to red heat held about an inch from the tumor. This was repeated three evenings. Tumor decreased, but the man having to go to Mexico I saw no more of him for several weeks, when he reported that a soft spot made him lance the tumor with a new pen knife, which drew out a clear fluid, but not pus-like. Wound healed, without a trace of tumor and scarcely a scar.

Since then he has applied the same treatment to the other lipomas with same result. Try it, but remember that the *surgical* fee was $15.00, while for the medical treatment locally I got $3. Charge accordingly for results—as I shall do next time, having faith in my remedy. It's not in books.

TUMORS AND DISEASES OF THE PAROTID

A report of an interesting series of cases in which the parotid gland was affected, either primarily or secondarily

By HORACE REED, M. D., Guthrie, Oklahoma

WITHIN the past three years it has been my privilege to observe a number of affections of the parotid. Because of the variety of these cases I have thought that it might be of interest to report them in brief.

Tumors occur primarily in the parotid. They may be benign or malignant, and are often mixed in character. Carcinoma and sarcoma occur in frequency about equal.

Malignant Tumor of the Parotid

Case 1. Mr. W. presented himself last October for operation. He said his physician had proposed to perform it under local anesthesia. There was a tumor involving the left parotid, about the size of the ordinary door-knob. On palpation it was found to be hard and slightly nodular. There was a small opening at about the center, from which there was a slight discharge of bloody serum. Under general anesthesia and after a very tedious operation the mass was removed *in toto*. I say "in toto" guardedly, for I doubt the possibility of removing the whole of the gland with its capsule without endangering structures the loss of which would do more damage than the presence of what little there might be left in endeavoring to save these parts. Especially do we insist that these important structures should be preserved in the light of our present knowledge of the x-ray on malignant growths when properly applied. The wound was closed with only a very small opening at lower angle for drainage, and the incision had completely healed in three weeks from operation.

One result of this operation I have not been able to explain, and that is the loss of hearing in the left ear, which was practically complete. Macroscopically the tumor consisted of about equal parts of fibrous and glandular masses. Microscopically the glandular elements show a marked carcinomatous infiltration surrounded by thickened fibrous bands almost cartilaginous in structure. There were strong evidences of sarcomatous condition in these masses. The x-ray was advised and three or four applications of it were made before he left the hospital. I have since learned that although I strongly insisted on the necessity of its being kept up, he did not take any treatments after returning home, and that he now has a recurrence.

Sarcoma of the Parotid

Case 2. Mrs. K., age 46, had a tumor on her right cheek for several years; no pain until about six months ago, when it began to enlarge very rapidly, and of late has been paining her considerably. Patient is very corpulent, and there is a history of cancer in a maternal aunt, otherwise negative. Tumor was soft and had the appearance of being fatty. It consisted anteriorally of two lobes which merged at the base just behind the angle of the jaw. In size it was about two by three and one-half inches. My diagnosis was fatty tumor, and a prognosis was made in accordance with the diagnosis. On opening the capsule I found instead, however, a soft, pinkish mass which bled very freely. Owing to the very suspicious character of the growth, I endeavored to remove it completely with its surrounding capsule, but found on reaching the base that there was a pedicle about the size of a finger passing around the angle of the jaw and into the parotid gland. By this time the

hemorrhage from the mass was so great that it became necessary to ligate the pedicle and tightly pack the cavity in order to control it.

After-treatment consisted in the application of the x-ray by her physician, Dr. W. A. Kendall, just to the point of a very slight dermatitis, and under this treatment what remained of the growth at time of operation has entirely disappeared. Macroscopically the tumor had all the characteristics of a small round-cell sarcoma. I regret very much that the specimen was spoiled in the preparation for sectioning, and that no satisfactory microscopical examination could be made.

In explanation of the fact that tumors of the parotid may be carcinomatous, sarcomatous or both, I quote from The American Text Book of Surgery: "It is espe cially in the carotid region that the different blastodermic layers come in contact with each other, which will account for the fact that most of the tumors of the parotid are of a mixed character."

Cystic Tumor of the Parotid Gland

Case 3. Mrs. B. Age 22. Family history negative; has always had good health. Her mother states that there was a small tumor on the patient's right cheek at birth. This tumor did not vary in size until she had reached maturity. At intervals during the past two or three years the tumor has become tightly swollen and painful, but was never inflamed. Treatment has consisted of applications of many descriptions; antiphlogistine for instance, and she had a large "gomm " of the above mentioned substance smeared on her cheek when she first came to my office. Her right cheek was tightly swollen or rather pressed out by a tumor situated in the course of Stenson's duct.

Suspecting that it was a cyst, a hypodermic needle was introduced, and it was readily filled with a straw-colored fluid. Under general anesthesia the cyst was opened on the inside of the cheek; the cyst-wall was broken up; the cavity was cureted and swabbed with pure tincture of iodine; the cavity was packed. It had completely healed within three weeks from operation, leaving a dimple on the cheek where there had previously been a tumor.

In passing I may remark, that cysts of of the salivary glands are not uncommon, and their successful treatment depends upon the removal or destruction of the cyst-wall.

Tuberculosis of the Parotid

Tuberculosis is an infection which may attack any part of the human organism. The parotid gland is not immune to its invasion, yet I must confess that I seriously doubt that it ever occurs primarily in this structure. It is a significant fact that situated within the parotid is a lymphatic gland, which is one of a chain known as the cervical lymphatics. The cervical glands are very frequently tuberculous. The invasion probably occurs through the tonsils, which are lymphatic structures. If the lymphatic of the parotid becomes infected and breaks down, as does sometimes occur, the parotid necessarily receives the infection and may also suppurate.

In my own practice I have seen several tuberculous parotids, and in practically all cases, where it was possible to get a definite history, it was found that there was an invasion of the lymphatic chain before the parotid became involved.

Treatment in the non-suppurative cases is medical. Iodine in some form is the remedy *par excellence.*

Suppurative cases are surgical. Simple incision and drainage is indicated in all cases; complete removal is rarely necessary. If the lymphatics of the neck are breaking down, their complete removal together with the fascia of the neck is indicated. Removal of tuberculous lympathics before they have caused the disease in the parotid would be better surgery.

Symptomatic Parotitis

The following cases may best be termed symptomatic parotitis—of which there have been three cases in the Guthrie Hospital.

Case 4. Number one of this series I am allowed to report by courtesy of Dr. C. S.

Petty under whose care he was, while in the hospital.

Mr. R., age 35, was, when he was admitted, just beginning convalescence from an attack of acute peritonitis—origin unknown. Temperature ranged the first day between 97 2-5° and 99 2-5° F.; second day it reached 99°; third day 101°, and left parotid was painful and somewhat swollen; fourth day the temperature was 101 4-5° and the gland was considerably swollen and very painful. By the seventh day the gland was tensely swollen and red, and the temperature reached 102° F. On the ninth day the temperature reached 103 4-5° F. and continued about so daily until the fourteenth day, when fluctuation was detected and free incision made. A large amount of pus was evacuated and the cavity packed with iodoform gauze. Temperature immediately dropped and convalescence was speedy.

Case 5. (Number two of this series.) Mrs. P., age 22, was admitted to the hospital May 17, 1904, and was operated on the 19th by Dr. A. L. Blesh, for a double floating kidney. The kidneys being found nephritic a partial decapsulation was done on both. Four hours after operation patient was in a state of severe shock and was pulseless.

It was found on examination that she was suffering from a severe hemorrhage, which had occurred in the left kidney which, owing to the fact that the incision had been closed, was concealed. Part of the stitches were removed, a large amount of blood clot evacuated and the wound packed with gauze in order to control hemorrhage which was still active. Either there remained a portion of the blood-clot or there was a continued hemorrhage, as proven by what took place in four or five days afterwards. There were, however, no further symptoms of hemorrhage. Her temperature on day after operation was 101; second day it reached 102; otherwise the patient was doing well; on the third day the temperature reached 103, and both parotids were somewhat swollen and painful. There was also evidence of infection in the wound where had occurred the hemorrhage. On the fourth day both parotids were tensely swollen and very painful. Drainage from infected wound was free, and its character indicated that it was the product of an infected blood-clot. From this time on the drainage continued free, and the swelling in the parotid gradually subsided, and had reached normal by the ninth day without suppurating.

Case 6. (Number three of this series) was brought to the hospital by Dr. J. L. Lehew of Pawnee, Okla., on Jan. 14, 1905.

Mr. B, age 60, had a strangulated left femoral hernia of about three days' standing. Operation was performed immediately. A gangrenous condition of the loop of the bowel included in the hernia required a resection. Anastomosis was made, employing the Murphy button. For fear of sloughing of bowel, the surgeon, Dr. A. L. Blesh, by means of a silk suture, anchored the point of union of bowel to the peritoneum at the point of incision, and left a small drain running down to it. The temperature on the following day was normal; on the second day it reached 100 1-5° F. and the patient complained of pain in the region of the parotid; on the third day both parotids were swollen, though drainage of the wound was fairly free. On the sixth day there was evidence of sloughing of bowel with the formation of a fecal fistula. Both parotids remained swollen and very painful, and it was necessary to incise the left one on the tenth day and the one on the right on the fourteenth day, and a small amount of thick, yellow pus was evacuated from both. The Murphy button was passed on the eleventh day, and the fecal fistula closed spontaneously a few days afterward. It is only just to remark that this case was a mouth-breather, and the anesthetizer had some difficulty in keeping up respiration; however, the force used in lifting the angle of the jaws was not violent, nor more than he has frequently used on other patients who afterward had no parotid complication.

Theories Concerning Celiac Parotitis

The nomenclature in literature of this peculiar affection is not definite. This is a result of a variance of opinions of differ-

ent writers on the subject. Dyball, in a paper in the *Annals of Surgery* for December 1904, would place all affections of this nature under the general head of secondary parotitis. He further classifies those cases following operations on or diseases of the abdominal and pelvic viscera under the head of "Celiac parotitis." Concerning this disease he says: "The main interest of celiac parotitis lies in its cause, and various opinions have been put forward, none of which, however, give a satisfactory explanation of all cases.

"The three chief are: (1) The pyemic theory, (2) the oral-sepsis theory, and (3) the 'reflex' theory."

Again he says: "As a rule celiac parotitis does not cause much constitutional disturbance, but . . . . the appearance of a parotid bubo a few days after a patient has undergone a severe operation must always be a rather serious complication."

The Analytical Cyclopedia of Practical Medicine under the head of "Symptomatic Parotitis" says that it is oftenest met with in typhoid fever, pyemia, pneumonia, influenza, puerperal fever, erysipelas and other infectious disorders, and that it may follow abdominal operation, especially ovariotomy and laparotomy for peritonitis.

In a short but interesting article in the March, 1906, number of THE AMERICAN JOURNAL OF CLINICAL MEDICINE, Dorland, of Dictionary fame, discusses the different phases of this disease under the head of celiac or splanchnic parotitis, and reports a case following an obstetric operation. He is of the opinion that the toxic theory furnishes the most satisfactory explanation of this trouble. He coincides in belief with Dyball, and quoting the latter author's views in brief says: "Most probably celiac parotitis results from the action upon the parotid glandular substance of peculiar toxic bodies, which have been absorbed into the blood. These toxins may originate in one of three ways:

"1. They may be secreted by certain organs which have been altered in their function by traumatism or by pathologic processes.

"2. They may be toxins of microbic origin, as from the bacillus coli communis, which have been absorbed either from the alimentary canal, the peritoneal or uterine cavities or the bladder.

"3. They may be the product of a disturbed digestion."

Is Mumps Primary Parotid Disease?

The classification of mumps as a disease primarily of the parotid has never seemed to me to be satisfactory, inasmuch as this structure is not the one which suffers most in the severer forms. The toxic theory of symptomatic parotitis applies to mumps also, and a definition of the latter disease to be comprehensive should be the following: An acute infectious, highly contagious disease, characterized by a fairly typical febrile course, and a secondary infection and swelling of one or both parotid glands without, however, suppuration.

There are other well-known complications in the course of this disease, but that of the parotid always occurs and if the others do occur at all the parotitis comes first in succession.

According to Anders, however, cases have been reported in which the disease first manifested itself by involvement of the sexual organs.

In the differential diagnosis of mumps there is not only these differences between it and symptomatic parotitis: (1) Mumps is highly contagious and symptomatic parotitis is not. (2) In mumps the parotid practically never suppurates, while in symptomatic parotitis fully 50 per cent of all cases reported have gone to suppuration.

::: SURGICAL THERAPEUTICS :::

STRENGTH OF BICHLORIDE SOLUTIONS

Many doctors, and most hospitals, make solutions of bichloride of mercury entirely too strong to be of great value. For purposes of assisting in sterilization of hands and field of operation 1 to 2000 is decidedly to be preferred. It is sufficiently germicidal for all practical purposes; anything stronger—like the commonly used 1 to 1000 strength—so affects the skin that the deeper microorganisms escape; and after a few minutes' hard work they are brought to the surface by imperceptible sweating. Most surgeons, too, merely wash the hands in the sublimate solution instead of permitting them to soak for two minutes by the clock. During severe operations the hands should often be immersed in the sublimate solution, and rinsed in salt solution before returning to the wound, particularly in abdominal work.

CALOMEL IN ABDOMINAL SURGERY

Calomel is a favorite with many surgeons who do much abdominal work—not in the large doses of our forefathers, but in tablets or granules containing a half centigram (approximately 1-12 grain) in sugar of milk. These are given beginning on the second day following operation, at which time the tongue is often dry, the abdomen slightly tympanitic and the stomach a little disturbed, especially if too much water has been permitted. If to such a patient one tablet be given every hour (one every half-hour if early catharsis seems desirable) until ten are taken, there will be a marked change for the better in patients not too profoundly septic; the tongue will become moist, gas will begin to pass, the nausea will disappear, thirst will diminish and, if at the end of the course a mild saline be given, free bowel-movement will speedily follow—after which the period of acute danger will have been passed.

TO PREVENT BED-SORES

When a patient is to be in bed for a long time, as in fracture of the thigh, great care must be exercised that bed-sores do not form. In the first place linen draw-sheets must be made, sufficiently large that they may be firmly fastened to the sides of the bed so as to prevent creases or wrinkles forming under the body—these and dribbling urine being the most frequent causes. Whenever the sheets become soiled by urine, feces or discharge from a wound, they must be changed. As soon as the slightest redness of skin is observed the affected surface must be rubbed with alcohol (65 per cent) and dried and then carefully anointed with glycerin; twice daily at least. Or equal parts of tincture of catechu and liquor plumbi may be substituted for the glycerin if that causes much smarting, as it sometimes does.

DEEP GLANDULAR SUPPURATION

Quite often the deep cervical glands become infected—particularly in weak children who have had measles or scarlet fever. In such cases, or in any case where deep-seated suppuration is suspected, sulphide of calcium sometimes acts beautifully. Unless the pus can be located and drainage established, the pain, fever and constitutional disturbance may become dangerous, a fatal result often having been observed. If one centigram (about one-sixth of a grain) of sulphide of calcium be given every hour when the patient is awake, the pain soon lessens, the fever

subsides, the abscess becomes well defined and may be opened much sooner—it will even "break" itself in four or five days instead of the two or three weeks it would otherwise require.

PAIN OF GALLSTONES

Certain patients subject to gallstone colic are relieved by the use of gelsemium taken at the very onset of the attack. The method of administration is this: At the first intimation of an on-coming paroxysm five drops of the tincture of gelsemium are taken, followed in fifteen minutes by a second dose. Fifteen minutes later a teaspoonful of bicarbonate of soda is taken in a tumblerful of very hot water; and in another quarter hour a third dose of gelsemium is taken. If relief is to be afforded by this plan no more will be needed; in rare instances the first dose alone checks the spasmodic contraction which gives rise to the attack.

INFLAMMATION OF ULCERS

Chronic ulcers, particularly varicose ulcers of the leg, sometimes take on an acute inflammation, they and the surrounding parts becoming exceedingly painful. A very useful application in such cases is digitalis. A teaspoonful of the dried leaves thrown into a pint of boiling water makes a strong infusion in which gauze may be soaked and applied to the inflamed surface; acting better if covered by rubber-tissue. After some hours' treatment by this the kaolin-glycerin mixture may be substituted.

TURPENTINE FOR THE HANDS

Pure turpentine is a strong antiseptic and is very useful in cleaning the hands for operation when one cannot use the permanganate of potassium and oxalic acid method (which ought to be employed when one has recently had the hands in pus and yet must operate). It is generally used improperly. The correct procedure is to scrub the hands with soft soap and warm water—running water if possible, if not, the bowl emptied and refilled at least twice—for at least five minutes; then to dry the hands thoroughly upon a clean (but not necessarily sterile) towel; and then to cut the finger-nails "to the quick." The turpentine is then poured over the hands and rubbed in thoroughly around the roots and ends of the nails and between the fingers; two minutes at least being devoted to this. Finally the hands and finger-nails are to be scrubbed in soap and clean warm water and then soaked two minutes (by the watch) in 65 per cent alcohol. They are then ready for immersion in the 1 to 2000 sublimate solution.

TREATMENT OF GOITER

Patients affected with goiter often want to take medicine in addition to the local application of iodine (tincture or the decolorized tincture). Iodide of potassium, half a gram thrice daily, seems to hasten subsidence of the swelling in some cases. Other patients take iodoform with apparent advantage; in capsule or tablet—one centigram three to six times a day. Phytolaccin (the active principle of phytolacca decandra) has been lauded in doses of one centigram (1-6 grain) four times a day. Strict attention should be paid to diet, rich foods being prohibited, and the bowels kept active—at least two movements daily—by salines or an aloin pill. Donovan's solution was much used long ago, but a tablet of iodide of arsenic—one milligram (1-67 grain)—three or four times a day will be found more agreeable.

NUX VOMICA DURING CONVALESCENCE

After serious operations the tongue may remain covered with a pasty, white coating for many days after all disturbance from the surgical work has subsided; the appetite being a little slow in appearing. This does not mean chronic sepsis, even of a mild degree, but may be ascribed merely to the stomachic disturbance which is like that attending cirrhosis of the liver when the

condition of the tongue is precisely similar. One centigram (1-6 grain) of calomel may be given every hour until the bowels move freely; and next day one or two drops of the tincture of nux vomica in half of a glassful of water every two hours. After twenty-four or forty-eight hours of this treatment the tongue will clean, the appetite return and the general condition improve rapidly. This is of particular interest in abdominal section without drainage where the conscientious surgeon, whatever his experience, is always a little anxious until the bowels are moving freely and the tongue has cleaned.

REMOVAL OF WARTS

For the removal of warts as well as corns salicylic acid is extremely efficacious. It is best used in the following form:

Salicylic acid..... 5
Extract of cannabis indica..... 1
Collodion 60

This is to be painted on the wart or corn at bedtime, with a camelshair brush. In four or five days the growth may be readily peeled off with a knife, leaving a tender but entirely healthy skin at its site.

INTERNAL MEDICINE IN GANGRENE

While it is true that very little can be done for gangrene (even diabetic) by internal medication, it is equally true that some kind of medicine must be given or patient and friends will be dissatisfied and some surgeon found who knows enough to *treat a patient as well as treat a disease!* Of drugs advised probably first choice should fall on nuclein—one of the "defensive proteids" of the living body which has recently been much employed in general debility; the dose of which is from two to five drops of the solution or one to three of the two-drop tablets in which it may be obtained. Four doses a day may be given. Alcohol may be of benefit in some cases, but as a rule one-twentieth grain of sulphate of strychnine four times a day will better hold up the patient's strength. The "triple arsenates"—arsenate of strychnine, arsenate of quinine and arsenate of iron, one milligram of each (gr. 1-67) four times a day,—give much satisfaction in keeping the patient from sinking before "demarcation" occurs, if that is to be waited for.

FISSURE OF THE ANUS

Obstinate cases of fissure of the anus which resist all other forms of treatment may be permanently relieved by simply cutting through the external sphincter under local anesthesia. The incision must be directly in the line of the fissure. After division of the muscle the rectum should be tamponed with iodoform gauze for two days; then the wound should be loosely packed once every twenty-four hours for four or five days, after the bowels have moved and the sigmoid and rectum are washed out with tepid water.

FOR SURGICAL FEVERS

Aconitine is a valuable drug in controlling the fever which naturally follows infection of a wound—such as a crushed foot or an abscess or boil. It may be given in doses of one-half milligram (gr. 1-134) every half hour until the temperature falls. If dispensed in granule form the patient must be instructed to swallow it quickly, throwing it well back into the throat, or disagreeable and persistent numbness of the tongue will be produced; or it may be given dissolved in at least an ounce of water. A small capsule may be used if preferred. This dosage is for the "amorphous" aconitine. It must be remembered that there is a "crystalline aconitine" upon the markets—several times as strong—the dose of which is 1-500 grain.

HEADACHE OF SEPSIS

For the relief of headache acetanilid may be given—guardedly if the heart be weak. A dose of ten grains may be ordered; it may be repeated in one hour if indicated, but no more should be permitted until twenty-four

hours have elapsed. A tablet called "acetanilid and codeine compound" will be found preferable in some cases. It consists of:

Acetanilid.....gr. 3 1-2
Sodium bromide.....gr. 1-10
Sodium bicarbonate....gr. 9-10
Codeine sulphate.....gr. 1-4

The dose is one or two when needed for pain; to be repeated once only if the first dose does not produce comfort.

NITRIC ACID FOR PILES

For many years nitric acid has held high favor in the management of bleeding hemorrhoids. Internal piles are treated by the application of a drop or two (through a speculum) to the hemorrhoidal mass; not to the whole surface, but simply to one or two points. It is not painful. Two or three applications to the dilated vessels are sufficient. For bleeding piles a dram of the dilute acid is added to half a pint of water and applied with a little absorbent cotton. Quite promptly the bleeding ceases, the protruding mass shrinks from constriction of the vessels and the heavy, dull, wearying discomfort subsides, even though the pile-tumor cannot be returned within the sphincter.

GYNECOLOGICAL THERAPEUTICS

CORSETS AS A CAUSE OF CHOLELITHIASIS

Dr. Charles Green Cumston, of Boston, in the *International Journal of Surgery*, says he believes the more frequent occurrence of cholelithiasis in women may be found in circumstances causing an obstruction to the flow of bile, such as tight lacing, which, in his opinion, is a very important etiological factor. Schroeder was able to show that in more than half of the females affected with cholelithiasis a corset-furrow was present on the liver. *Medical Standard* adds, that this has also been pointed out by Schrueppel and Roth; and Marchand very aptly says that this lacing-furrow as a rule runs across the right lobe of the liver, while in the region of the gall-bladder will be found pressure-atrophy of the parenchyma, particularly involving the connective tissue. When lacing has been greatly overdone, there occurs what he terms a lacing-lobe, and the gall-bladder appears to be solely connected with this, so that the pressure is brought to bear on its neck, as well as on the cystic duct. In such cases one not infrequently finds a distended bladder reaching quite a bit above the edge of the liver. From the position of the lacing-furrow, it is plainly evident that the gall-bladder and biliary ducts are exposed to quite extensive traumatism, as well as compression of the cystic duct, which results in stasis of the bile.

HERNIA OF PREGNANT UTERUS

A case of this kind is reported by Arthur Holmes (*Clinic and Pure Water Journal*), the protrusion occurring through a recently-closed abdominal incision. The patient had become pregnant shortly after the operation, and had noticed a lump protruding from the lower part of the abdomen. This after the confinement had almost disappeared. She again became pregnant, the lump steadily increasing, and circular ulcers formed where the clothes and thighs had rubbed. After delivery in November, 1903, the tumor returned, though smaller in size. In December, 1905, she came to the hospital. On examination there was found a tumor springing from the umbilicus and symphysis, which, falling forward, reached more than half way down the front of the thighs. This proved to be the uterus and the fetal movements were felt. The skin was very thin and large circular ulcers were distributed over its surface. Some of these

extended to the uterine muscle. The patient stated positively that she was at full-term and that labor pains were beginning. She delivered herself suddenly without any trouble of a live child, which presented all the appearances of being full-term. Its weight was 3½ pounds, its length 14 inches. The placenta was removed manually on account of hemorrhage. Reduction of the uterus was impossible because of adhesions. The diminutive size of the child was thought to be due to the diminished blood supply, consequent on the abnormal position of the uterus, and the constriction caused by the ring of the sac. Since delivery the tumor is about the size of a man's head, and the woman goes about her work, apparently in good health.

BROMIDES IN MENORRHAGIA

Certain cases of excessive menstruation are due to disturbance of the nervous system rather than to any organic pelvic disease; especially in hysterical young women. Examination of the most careful kind may fail to give any sign whatsoever of any vaginal, uterine, tubal or ovarian trouble, yet the extremely free flow reappears month after month. To such patients a prescription like the following may be given:

Bromide of sodium ..... 4. (gr. 60)
Hydrobrom. of hyoscine.. 0.01 (gr. 1-6)
Elix. bromide of potash ..60. (ozs. 2)

Directions: One teaspoonful at night and morning for one week before the expected flow.

NYMPHOMANIA

In nymphomania, when no local source of irritation can be found, such as retained smegma from adherent hood of clitoris, ascarides, ovarian disease or urethral caruncle, monobromated camphor may be given, three or four times a day, one decigram (1 1-2 grains) tablets being obtainable, of which two or three constitute a good dose. If erotic dreams are present fluid extract of pussy-willow or salicin will do good. It is said that some cases yield promptly to cypripedin and scutellarin, one centigram of each three times a day.

NERVOUSNESS AT THE MENOPAUSE

For the nervousness of pregnancy and at the menopause, the most prominent symptom of which is the tendency to jump at noises (usually accompanied by irritability of temper) the following is highly recommended:

Bromide of ammonium 8.00
Bromide of potassium.... 16.00
Aromatic spirit of ammonia.16.00
Camphor water, to 128.00

A dessertspoonful (increased to a tablespoonful if necessary) every four hours.

APIOL FOR AMENORRHEA

Apiol has been highly praised as an emmenagogue. It is a yellowish, oily liquid, of disagreeable acid taste; derived from parsley. It is claimed that it will not produce abortion, though it congests the pelvic viscera. It should be ordered in capsules containing a half gram (7 grains); one three times a day for one week before the proper time for a menstrual period; with a good dose of aloes at bedtime.

IRRITABLE BLADDER IN WOMEN

Middle-aged and elderly women often suffer from an irresistible desire to pass urine frequently. The act causes no pain, there is no strain, there is normal urine and examination shows no cystocele, urethral caruncle, vesical ulcer or other local sources of irritation. Some of them even spill a few drops of urine every time they sneeze, cough or laugh heartily. The cause of the trouble is relaxed sphincter of the bladder. To such patients one or two drops of tincture of cantharides may be given three or four times a day with almost certain prospect of relief after a few days in all cases, and a permanent cure in a few. Sulphate of strychnine

should be ordered in maximum doses to maintain the good effect and it should be continued from six to eight weeks. In the worst cases it may be necessary to tighten up the sphincter by a plastic operation on the urethra.

FOR SEXUAL NEURASTHENIA

As an aphrodisiac as well as general tonic in sexual neurasthenia "the three arsenates" with nuclein will often give satisfactory results. A tablet consisting of

Strychnine arsenate..0.0005	(gr. 1-134)
Quinine arsenate....0.001	(gr. 1-67)
Iron arsenate.....0.001	(gr. 1-67)
Solution of nuclein..0.25	(4 drops)

may be ordered, of which one is to be taken every two hours, or three after each meal and at bedtime. In the debility of advancing age this has given most excellent results. Nuclein is declared to be the most powerful known stimulant to the sexual organs.

CHAPPED NIPPLES

If chapped nipples be carefully washed and dried each time the baby ceases nursing and then painted with compound tincture of benzoin they usually heal in a few days. For obstinate cases one may order equal parts of sulphurous acid and glycerin. If there is but one crack it may be covered with collodion flexile just before the baby is put to the breast.

VULVITIS OF CHILDHOOD

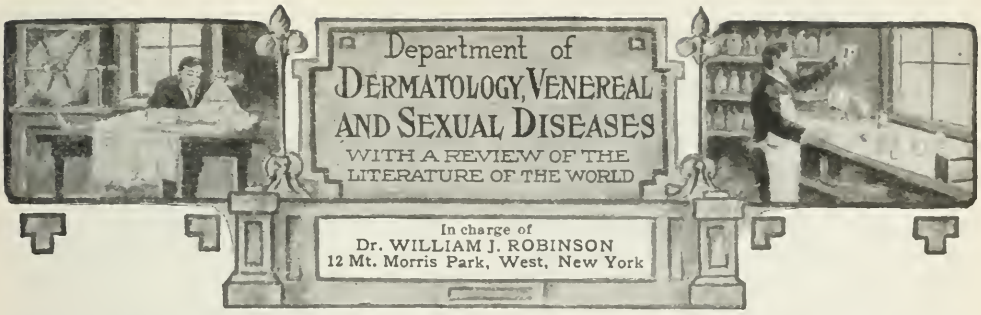
From various sources of irritation, constipation, seat-worms, etc., vulvitis occurs in early childhood, even infancy. In such cases the pus must be washed away carefully, every two or three hours, and the affected parts bathed freely in a solution of alum, 60 grains to the pint of water; and then covered with a piece of gauze saturated in the same solution. Many times the inflammation is not limited to the vulva, the purulent discharge besides coming from the mucous surfaces of the vulva pouring out from the vagina as well. Here it is necessary, in addition to the same careful attention to the vulvar surfaces, to thoroughly distend the vagina with the same fluid, using a small syringe. If this strength of solution aggravate the inflammation at first it may be temporarily weakened. After a few days' treatment a solution of zinc sulphate (3 grains to the ounce) may have to be substituted. Strange as it may seem microscopic examination shows the disease to be gonorrhea in a vast proportion of cases—even in country practice—though the source of infection seldom can be traced. Fortunately, unlike the grown woman, the inflammatory trouble does not spread to the uterus and tubes.

NITRATE OF SANGUINARINE FOR AMENORRHEA

When sexual coldness accompanies amenorrhea, nitrate of sanguinarine may be prescribed in doses of from one to four milligrams every four hours. Since it is a general tonic as well as sexual stimulant it is especially indicated for anemic patients. Iron may be given in conjunction with it—in small quantities, the arsenate in milligram tablets being perhaps the best form.

IODINE AFTER CURRETTAGE

It is a peculiar thing that the staphylococcus is much more resistant to iodine than is the more virulent streptococcus pyogenes, the peculiar pus-germ of erysipelas, puerperal fever and carbuncle. A solution of 1 to 500 is sufficient to destroy the streptococcus; 1 to 100 is necessary for the staphylococcus. After curettage following abortion it is better to irrigate with iodine and iodide of potash, of each 4 grams to the liter (60 grains to the quart of water), than to use bichloride of mercury in any strength. The uterus may be packed with iodoform gauze.



MASTURBATION AND ITS TREATMENT

The treatment of this habit, to which it is asserted 98 per cent of human males are at some time addicted, is carefully outlined, to suit the varying conditions

By WILLIAM J. ROBINSON, M. D., New York
Editor of The Critic and Guide

THE opinions as to the effects of masturbation are contradictory in the extreme. The old writers—I mean not the quacks, but the regular orthodox physicians—exaggerated the evils of the habit to an absurd, ridiculous degree. Whether they did it in perfect good faith, because this was their real belief, or whether they did it from a pious desire to induce the victims to quit the habit, it is hard to say. The fact remains, however, that by their writings they did tremendous damage and there is no question in my mind that many of the mental symptoms which were noted in masturbators were produced not by the masturbation in itself, but by the lurid literature which gave an early grave or the madhouse as an inevitable consequence of the habit. And the scoundrels that live on human misfortune and gullibility still continue to paint the evils of masturbation in the same lurid colors; and it is so much more easy for them to convince the frightened youth because they support their statements by quotations and illustrations from the older writers, who were world-famous specialists and professors in this or that university. Every excess is inevitably followed by a reaction and the absurd statements of the older writers led some physicians of recent years to the other extreme—to the assertion that masturbation is no more injurious than normal coitus and is not followed by evil effects at all. This assertion is decidedly untrue. The truth in this as in most other statements and theories lies in the golden middle.

The Commonness of Masturbation

If you hear or read that the habit of masturbation is on the increase, don't believe it. The habit is as old as the human race, and practically every male has for a longer or shorter period been addicted to it. It is a liberal estimate to state that two or three per cent of the male portion of humanity escape it. Many species of animals indulge in the habit quite commonly. I never ask a patient if he ever masturbated. I take it for granted. I only ask from what year to what year he has indulged in the habit and how frequently.

What are the effects of masturbation? Here like in many other things affecting the human organism, the individual equation is paramount. I have seen people who indulged in the habit for several years steadily and quite frequently—once, twice or three times a week—and without apparent injury to their mental, moral or physical

well-being. On the other hand, I have seen young men from seventeen and up, whom you could well describe as *wrecks*. Penis cold and shrunken and incapable of any but momentary erection, the testicles reduced to practically nothing, to the size of beans, the scrotum cold and clammy, *libido sexualis* absent, no ambition for any physical or mental effort, bowels constipated, appetite none, memory dull, in short, a nuisance to themselves and to others—and positively made so by masturbation. Here are the two extremes, with the numerous intermediate gradations.

Factors Influencing Effects

What causes the difference? Numerous individual factors. Of great importance is *the age* at which the person commences to masturbate. The younger the boy, the greater the damage and whenever you do meet with an irretrievable case, it is one in which the habit was contracted at a very early age, nine to ten years.

The second factor is *the frequency* with which the habit is practised. This factor is co-equal in importance with the first. While I greatly doubt the accuracy of Lallemand's and other stories of boys practising masturbation ten or fifteen times *an hour*, or even a day, still the fury with which the process is practised by some boys, beginners especially, is as remarkable as it is disgusting, and it is these early and furious masturbators that furnish candidates for irreparable wrecks and hopeless hypochondriacs. But here an interesting question crops up. Is the masturbation the sole, the real cause of the physical and mental decay of those poor unfortunates, or do they become furious masturbators because they are already suffering with a mental and physical disequilibrium and the masturbation simply makes matters worse and closes a vicious circle? For some investigators deny that a "normal" boy would indulge in the habit three to eight times a day for several months or several years in succession. A boy who is doing that must have been born with a neurotic or vicious heredity. That is all very well, but unfortunately there is no distinct line of demarcation between normal and abnormal, the transition is very gradual and the passing from one class into another is rendered very easy by some injurious habit. So that it is very hard to say which was the cause and which the effect. A boy's equilibrium is very easily upset.

The third factor is the constitution of the boy—whether he is or was strong, robust and well nourished or puny and a weakling. I will say in parentheses that I am satisfied that masturbation started at a very early age, and practised to excess, will prevent the boy's growth in height. Many who might have grown up to be six-footers, grow to be only five-and-something-footers. A fourth factor is the boy's general hygienic environment—whether he eats good nutritious food (which makes up to some extent the drain upon the system), whether he is engaged in physical work or not, etc. The fifth and last factor is the age at which the habit is *discontinued*. There are other factors, but they are of minor importance.

Treatment

In discussing the treatment of masturbation we may consider the subject under three heads. Masturbation in infants and young children, "normal" masturbation and abnormal or morbid masturbation. The term "normal" masturbation may be objected to, but the sense in which I use it will be clearly understood. Masturbation in infants and young children, before an emission is possible, is an entirely different matter from masturbation in adults. It is more a matter for the parents and tutors than for the physician. In infants it is often due to irritation and nothing else. This irritation may be caused by an acid urine, by gravel, by worms, by pruritus ani, etc. All such causes must be diligently looked after and treated. And the causes removed, the vicious habit will often cease.

Where a child masturbates because he was initiated into the habit by some companion or a vicious nursemaid (not a rare occurrence) there educational measures are of

chief importance. The child must be carefully and constantly watched. It should sleep with one of the parents and this will have a restraining effect on the child during the night. If necessary, it should be put to sleep in a shirt with long, closed sleeves tied either in front or in back, so that the child cannot handle its genitals. A sedative and hypnotic for a few nights, so as to render the sleep more profound, may be indicated. Opiates should under no circumstances be given, for aside from all other dangers with which everybody is familiar, it is a fact with which few are familiar that opiates often act as an aphrodisiac. The best combination to give is 5 grains of sodium bromide combined with 2 to 3 grains of chloral hydrate. Ablutions or sitz-baths should be practised, but the water should not be hot, and most positively it should not be cold. It should be lukewarm—about 100° F.—at which temperature it acts as a sedative, and not as a stimulant.

Sometimes it may become necessary to produce artificially a sore on the penis by the application of a drop of nitric acid, etc., so that the handling of the genitals and an erection will cause considerable pain. I have tried it a number of times on adults with excellent results. And the same rather cruel treatment carefully carried out, applied to the clitoris, will prove useful in breaking the habit of masturbation in little girls.

On spanking, as a therapeutic measure, I do not wish to pronounce a dogmatic opinion. Generally speaking, I am not in favor of it, but I must acknowledge that in some children a good spanking acts with greater certainty and promptness than any drug in the Pharmacopeia and National Formulary or any non-official synthetic, ethpharmal, non-secret or purely quack remedy. And it is always handy and does not cost much.

Treatment of Ordinary Cases

We now come to the regular, ordinary or normal masturbation. The class that is of most interest to us. A male—his age may range, oh, between 12 and 50—comes (or is brought) to us. He is masturbating rather excessively but wants to get rid of the habit. Of course the way to stop masturbating is to *stop* it. The same as with smoking. Will-power is of paramount importance. But still we can help our patient very materially; we can make it easier for him to go through his ordeal, we can help him resist temptation, we can remove certain factors which keep him in an irritated condition and which make him believe he *must* masturbate.

Remove from him, first of all, the fear that he is hopelessly lost, that he can never get well or that he can never marry. Some patients come with peculiar notions, derived principally from the quack pamphlets. Next examine the patient's urethra by sound or endoscopically. If the prostatic portion is congested and hypersensitive, as it usually is in those who practised masturbation to any excess, then here is where treatment should be directed to. Steel sounds, Kollman's dilators, the cold water urethral sound, the ice water rectal tube, instillations and irrigations of silver nitrate or protargol, instillations of hydrastine—all these measures are expedients which may be resorted to.

Sedatives are distinctly in place, and it is here where I give large doses of bromides—as much as 60 grains of the combined bromides of sodium, ammonium and strontium per dose. You know my opinion about hypnotics; use them as sparingly as possible; but it is often imperative to secure a sound night's rest and a quiet day, and we must resort to them occasionally. Some weaklings must have extraneous aid, and the production of a sore on the penis, by the aid of nitric acid, thermo- or electrocautery, etc., works wonders occasionally. It makes the handling of the genitals disagreeable, an erection very painful—and if we can only make the patient go two or three weeks without masturbating, the habit is broken and the battle, barring relapses, is won. Static and faradic electricity, the application of the actual cautery to the spine, are other measures which are useful. How much is due to the measures

per se and how much to suggestion is hard to decide, of course.

As to intercourse. If the masturbator is totally continent, sexual intercourse is advisable. But we must not forget that intercourse alone will not cure a masturbator from his habit, and it is well to bear in mind that there are people who practise intercourse and masturbation at the same time, and both quite frequently. In fact, I have treated even married men for masturbation. As to advising marriage as a cure for masturbation, I have not words strong enough to condemn this nasty and dishonest practice. To get married before the patient is cured of his habit, before the evil results of the habit have been removed, means laying a foundation for life-long misery for both husband and wife. If the patient marries before his prostatic urethra and ejaculatory ducts have been cured of their congestion it will not be long before he will suffer with premature ejaculation and perhaps impotence, and his wife—with sexual neurasthenia. I repeat, for men to get married as a cure for their sexual disorders before attempting to cure themselves by rational means is criminal. It often spells life long misery to both partners. On old maids marriage generally works like a charm—but not on men. Men must first put themselves in proper condition.

We now come to the third class—the class of abnormal masturbators. These are creatures truly to be pitied. They masturbate furiously and continually, though they experience no pleasure from the act. Such often do land in the insane asylum. But as I stated a little way back, it is a question whether such people become insane because they masturbate, or whether they masturbate to excess because they have something abnormal in their brain. The truth probably is that a vicious circle is soon formed—as is so often the case in pathologic conditions—and the conditions mutually aggravate each other. The treatment of such people cannot be well conducted at home unless under the care of two very competent male nurses; they should be confined to institutions. The treatment really belongs to the alienist.

INTERNAL TREATMENT OF GONORRHEA

Have internal remedies still a place in the treatment of this disease? The use of the balsams and some of their combinations

By M. R. DINKELSPIEL, M. D., Philadelphia, Pa.
Ex-Resident Physician of the Philadelphia Hospital

IT can be reasonably inferred from the literature of genitourinary diseases that the treatment of gonorrhea has become more and more a local one, and that the administration of drugs by the mouth, especially of the balsams, no longer occupies the position formerly accorded it.

The epoch-making discovery of the gonococcus by Neisser has placed the detection and pathology of gonorrhea upon such a basis of scientific certainty, that the bacteriologic aspect of the disease occupies an exalted position so far as the therapy is concerned, to such an extent that the older preparations, especially the balsams, have by many been relegated to an undeserved position of inferiority. As the result of this increasing metamorphosis we have been supplied with a dozen means for destroying the gonococcus to one for treating gonorrhea, with the result that many cases presenting themselves with complications and exacerbations but represent the delusions of abortive measures by means of highly astringent and corrosive substances.

If the gonococcus were so superficially situated throughout the disease as to be affected by locally applied solutions, I have no doubt that a strong solution of nitrate of silver would be all that was needed.

The so-called abortive methods are often instituted after the gonococcus has pene-

trated the urethra to such an extent as to be practically inaccessible to the solution intended for its destruction, and it has always appeared to me that a solution at that time capable of destroying it, cannot do so without an over-balancing amount of injury to the urethra. Be it our adoration of antisepsis in all diseases of an infectious origin, or be it the accessibility of the gonorrheal process, the balsamic remedies, which have demonstrated their value for many more years in the treatment of gonorrhea than bactericidal solutions are no longer being used to the extent, that they have been.

Regarding the mode of action of the balsams in gonorrhea we have been furnished in recent years with some very important and valuable investigations, with a result that these drugs are again forcing the recognition which for a time they were losing. One of the chief objections to the balsams has been their unpleasant effect upon the stomach and kidneys, which was chiefly attributed to the impurities of their ingredients, although some attributed them to the drugs themselves.

I must confess that I have often observed these untoward effects, even from the purest drugs procurable, and I have particular reference to the oil of sandalwood. This substance has been used by the natives of India for gonorrhea for many years, and when pure is of a pale yellowish color with a characteristic smell and taste. Its physiological action may be well expressed in the words of Park[1]: "Its physiological effect is generally to constringe all the mucous membranes of the body. Thus the immediate effect of a dose of it is to cause dryness of the fauces and thirst. During its digestion and absorption this thirst is kept up and intensified in some cases; in all, if a large dose be given (i. e., grs. 15 to 20), and in many with a merely legitimate dose, it produces a feeling of 'drawing together of the bowels,' sometimes verging on colic. Its action is somewhat more powerfully felt in the kidneys. At a period varying from two to three hours after it has been taken, a sense of fulness is experienced in both (renal) regions. This sense of fulness, or weight, or tension, lasts for a period varying from ten to twenty minutes."

In order to determine the principles upon which the relations between the chemistry and therapeutic action of the balsams are based, Vieth[2] undertook a series of interesting and highly important investigations, with a view of overcoming some of the secondary effects which the balsams give rise to. These experiments were conducted upon animals and later confirmed by their application with a view of improving the therapeutic efficiency of the drug when given in gonorrhea. In the first place he found that the balsams consisted of four distinct classes of substances: terpenes, terpene alcohols, resin acids, and resins, in the following percentages.

	Terpenes	Terpene Alcohols	Resin Acids	Resins
Oil of Turpentine ..	100%			
Terpin Hydrate		100%		
Resin			90%	10%
Balsam of Copaiba .	55%		40%	5%
Para-Balsam	65%		30%	5%
Gurjun Balsam	70%		5%	25%
Ext. of Cubebs	65%		10%	25%
E. Indian Sandalwood oil	6%	94%		
W. Indian Sandalwood oil	35%	65%		
Cedarwood oil	80%	20%		
Oil of Juniper	90%	10%		
Res. Kawa Kawa...			10%	90%?

It was furthermore found, not only in the case of balsam of copaiba but also in the case of sandalwood oil that the secondary after-effects could be eliminated by the conversion of the sandalwood oil into the ester of an organic acid, the salicylic acid ester being found the most desirable.

I have employed this ester of santalol, or santyl, in a series of twenty cases, in none of which it has disagreed, in all of which it has proved signally effective, and in some of which there had been marked intolerance to pure sandalwood oil. In addition to the administration of this drug, appropriate local, constitutional, and dietetic measures were instituted, with total abstinence from alcoholic beverages and sexual intercourse. Similar results have been observed by Vieth and Ehrmann[3], by Lilienthal[4], Kaufmann[5] and others. In addition to the therapeutic efficiency of this chemical transformation of sandalwood oil, the prod-

uct is free from the objectionable taste and the odor during expiration so characteristic of the oil itself. Among the twenty cases observed were four of posterior urethritis in which the results were particularly beneficial. I attribute no little of its therapeutic efficiency to the liberation of salicylic acid in the urine, the presence of which, when the drug is given in sufficiently large doses, can be determined by the usual reaction upon the addition of perchloride of iron.

By overcoming the disagreeable after-effects from sandalwood oil, we are enabled to avail ourselves of another important property of these drugs, namely that they are most efficient when given in sufficiently large doses, a point particularly emphasized by Schmiedeberg[6]. This authority has advanced a valuable argument, namely, that the urine is rendered more aseptic after the administration of the balsams, that is, does not decompose readily and remains so for some time, a most valuable consideration in the internal therapy in gonorrhea, in which process locally applied disinfectants are often washed away by the urine. When administering the salicylic acid ester of santalol, I usually do so from three to four weeks with a minimum dose of fifteen drops three times daily and at times have given as high as twenty-five and thirty drops daily for a week without any secondary manifestations. It is best administered in capsules. Particular attention was given to the urine, in the manner advocated by Vieth and Ehrmann (l. c.) as follows: The urine must be acid and when it is alkaline it is rendered acid in reaction to a slight degree by means of a drop of dilute acetic acid, then filtered and boiled. Another drop of acetic acid and some alcohol are then added. If a turbidity is then demonstrable, or flakes present, there is albumin in the urine, as resin acids are soluble in alcohol, and unless alcohol is added albumin may fallaciously be considered present. In no instance was there any untoward effect upon the genitourinary apparatus. In none of my cases were there any symptoms of epididymitis, in four cases there were some symptoms referable to the prostate gland, and in one case an obstinate chordee which, however, receded after hot applications and bromides.

One of the latest contributions on the subject is that of Bottstein, who has most successfully employed this salicylic ester known as santyl, and records his experiences in sixty cases. Bloch[7] calls attention to the view of Kobert[8], that during the administration of the oil of sandalwood there should be no marked diaphoresis, as the balsams in such cases, especially in the summer, are less useful, as they are eliminated through the skin during perspiration and therefore become less prominent in the urine and may even cause erythema and pruritus. I have observed no such results in the series of cases above mentioned, although some were treated during the summer, and others by reason of their vocations were subjected to considerable sweating.

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SYPHILIS AND CANCER OF THE TONGUE

In a discussion upon cancer before the Academie de medicine of Paris, very recently, Poirier (says the *N. Y. Med. Jour.*, Jan. 5, 1907) flatly declared his personal conviction that cancer of the tongue was not a

disease which might appear in any one. Two conditions were almost indispensable for its appearance—the patient must be a smoker and syphilitic. Those who presented these conditions, especially the latter, were much more liable than other persons to become affected in this way. In fact, we might give it the special designation of the cancer of syphilitic smokers. Commenting at some length upon this thesis, Fournier (*Bulletin Medical*, Nov. 23) gave it his entire approval. He reviewed the course of syphilitic lesions of the mouth and the development of leucoplakia, which might be regarded as intermediate between syphilis and epithelioma. He also pointed out the effects of tobacco in inveterate and persistent smokers, but insisted that tobacco alone was rarely if ever followed by cancer of the tongue.

A case in point, reported by Barthelemy, was cited in which a man smoked excessively for thirty years without presenting the slightest leucoplakia. At the end of this period, however, he contracted syphilis, and continued his abuse of tobacco as before. Two years later he presented himself with an intense form of leucoplakia of the tongue. The rule, as pointed out by Fournier, is that cancer does not develop directly in a tongue that was previously healthy, even in a syphilitic; but it requires a local lesion, and in the great majority of cases leucoplakia is the forerunner of epithelioma of this organ.

We should therefore prevent mouth lesions by early and effective treatment of syphilis, and warn syphilitic patients against the excessive use of tobacco, whether leucoplakia is actually present or not. [While we are not a crank on smoking, and allow our gonorrheal patients full freedom in this respect, we refuse to treat any syphilitic who does not give up smoking absolutely. —W. J. R.]

THE TREATMENT OF PSORIASIS

There is still a good deal of disagreement among the authorities as to the value of arsenic in psoriasis. Dr. Neuberger maintains (*Archiv Dermatologie und Syphilis*, vol. 82, No. 3) that arsenic is useful in many cases and is never injurious. However, it is necessary to be guided by certain indications. The arsenic cure is indicated first in all generalized and acute cases of psoriasis. Second, in all cases in which external remedies cause dermatitis and thirdly in the less frequent cases of doubtful diagnosis. Intoxication occurs only after very prolonged and excessive use. The drug should not be given for longer than three months and Fowler's solution is the best form for administration, going up to 25 or 30 drops per dose. Recurrences are not prevented even by arsenic. The use of arsenic subcutaneously does not meet with approval at the hands of the author.

Dr. Blaschko on the other hand, emphasizes the extremely capricious action of arsenic which makes it unreliable. He also takes a more tolerant attitude towards the newer preparations of arsenic and warmly recommends the rectal administration of atoxyl in the form of injections or suppositories.

THE TREATMENT OF LICHEN RUBER

This disease has been treated by Seifert (*Archiv Dermatologie und Syphilis*, Vol. 82, No. 3) with ointments and protective bandages as an adjuvant to the routine treatment with arsenic internally. External remedies are especially indicated when limited areas remain after a general cure with arsenic. The applications usually employed are zinc gelatin and zinc paste. Arsenic is sometimes useful, also externally in the form of a one half per cent ointment. Another valuable method according to Dr. Hans Vorner is the application of a bandage to the legs, if the latter are affected (with lichen rubber). The action of this treatment is not due to its protective virtues, but rather to the removal of venous pressure. He employs a compression bandage of adhesive plaster and is able to report some striking results. Similar good effects have been obtained from the compression band-

age in the treatment of psoriasis and syphilitic gumma of the leg, but in the latter cases recurrences are very apt to take place, whereas in lichen ruber a permanent cure is more likely.

LICHEN ALBUS: A NEW SKIN DISEASE

Dr. Leo von Zumbusch (*Archiv Dermatologie und Syphilis*, Vol. 82, No. 3) describes a case of lichen albus, as he calls this "new" that is, as yet undescribed disease. The patient was a woman of 51 years. Her disease had lasted four years and consisted in groups of small efflorescences of a round or slightly polygonal form, pale pink or bluish in color. The only subjective complaint is intermittent pruritus. The diseases to be differentiated from this one are psoriasis, lupus erythematodes and lichen ruber planus. Morphologically the author is compelled to place the new disease in the group of lichens. The remarkable whitish color of the eruption has furnished the second part of the name.

THE THERAPEUTIC USE OF SAJODIN

Sajodin is a new preparation of iodine intended to obviate the well-known undesirable by-effects of the old iodides. So far the reports on sajodin have been very favorable and the drug appears to promise a good deal more in the future. The authors, Drs. Geronne and Marcuse, under the direction of Prof. Senator, Berlin (*Die Therapie der Gegenwart*, Dec., 1906) have used sajodin in over 50 cases of various kinds such as emphysema, bronchial asthma, chronic bronchitis, arteriosclerosis, rheumatism, syphilis, etc. Not a single time was iodism observed. The stomach was never upset, neither was any coryza, headache or acne noticed. The action was invariably satisfactory. As much as six grams (90 grs.) daily has been given with no ill-effects. The action seems to be prompt and distinct in spite of the small percentage (26) of iodine. Patients who did not tolerate the alkaline iodides did very well on sajodin. Compared with potassium iodide the new drug is absorbed somewhat slowly, but this does not interfere in the least with its therapeutic value. In general it might be said that sajodin is a very useful iodine compound, being tolerated much better by the patients than the alkaline iodides. The only drawback at present is the high price of the new drug.

DERMATITIS CAUSED BY RESORCIN

Resorcin is recommended in almost all dermatoses and in eczema it is employed in solutions of 1-2 to 2 per cent. The author, Dr. Rosenthal (*Annale Syphiligraphie*, Nov., 1906) had ordered wet applications of a one per cent solution of resorcin and a two per cent solution of boric acid for 15 minutes several times daily. These applications having relieved the itching, he had them covered with impermeable tissue and left them on for about an hour. This caused a violent dermatitis with severe pains and itching of the whole face and enlargement of the neighboring lymph-nodes. Three days later the pruritus became generalized and a papulous rash made its appearance. Still later herpes appeared on the temples. The pruritus lasted for several weeks while the dermatitis was cured rapidly. The urticarial rash must be attributed to the absorption of resorcin, while the herpes was due to an affection of the nerve filaments. Such experiences indicate the need of some caution in employing resorcin.

PROSTATIC HYPERTROPHY AND DIABETES

Dr. C. Posner (*Harn und Sexual Organe*, Vol. 12, No. 12) calls attention to cases of diabetes mellitus in which the sugar may have entirely disappeared from the urine and yet the other symptoms, such as poliuria, thirst, etc., persist. According to his experience in such cases there is frequently present the prostatic hypertrophy which has been obscured by the diabetic symptoms. On the other hand the hypertrophic prostate might conceal the presence of diabetes.

However, in all diabetics of advanced age, the urinary organs should be carefully examined. And in all cases of urinary disease sugar must be looked for in the urine. It is possible that there is a causal connection between the two diseases, the prostatic sufferer being disposed to diabetes, owing to the presence of arteriosclerosis. The latter should always be looked for when diabetes and prostatic hypertrophy are found in one person. These patients are very difficult to treat and special care is needed in operative interference which ought not to be advised hastily. In the discussion following the reading of the paper Prof. Senator called attention to the difficulties which an ammoniacally decomposed urine offers to the examination for sugar; such urine dissolves cuprous oxide in large amounts and even the fermentation test may, in an ammoniacal urine, give rise to errors. What's more, from an ammoniacal urine, ammonia, trimethylamine, etc., may be taken into the blood and produce so-called ammonemia, a condition giving rise to many symptoms which are similar to those of diabetes.

GONORRHEAL METASTASES IN THE EYE

Gonorrheal metastases in the eye may take place without any infection due to contact. Dr. Greeff (*Harn und Sexual Organe*, Vol. 12) has observed numerous cases of this kind. The most frequent one is iritis, but metastatic conjunctivitis is also met with and shows considerable difference from the primary conjunctivitis due to infection by contact. These complications usually appear in the later stages of gonorrhea.

ALBUMINURIA OF PROSTATIC AND SEMINAL ORIGIN

The literature on albuminuria, extensive as it is, doesn't take much account of the prostate gland or the seminal vesicles as the source of albumin in the urine. We are too much imbued with the idea that the presence of albumin in the urine points to the kidneys as the source. Nevertheless, there are many cases on record and probably many more go unrecognized in which an albuminous urine does not indicate the presence of any renal region. Pus or blood, as well as semen or prostatic fluid if present in the urine will tend to mislead the careless examiner. This point is especially important in examinations for life insurance, and Dr. W. G. Young (*N. Y. Med. Jour.*, No. 1466) reports two cases illustrating the point in question.

The first case concerns a young man of 21 years who applied for life insurance and was rejected owing to the presence of albumin in his urine. The author had occasion to examine this young man frequently and finally succeeded in tracing the albumin to the chronically inflamed prostate and vesicles. The urine taken with due precautions from the bladder did not show even a trace of albumin.

The second case was that of a man 38 years old who had previously suffered from a mild seminal vesiculitis. He was also refused admission in a life insurance company although the author could find no indication of renal trouble whatever.

The important question is, how are we to distinguish this form of albuminuria from other forms? If we examine the urine of a patient and find albumin we should have recourse to the microscope in order to determine the presence of any renal disease. If the microscopic examination is negative as to kidney lesions, then the examiner should direct his attention to the prostate and seminal vesicles. The patient is directed to pass his urine, retaining only a small quantity in the bladder. The prostate and seminal vesicles are then massaged through the rectum and the remaining urine is now passed and will be found to contain much more albumin than the first urine. Now irrigate the urethra and pass a catheter into the bladder, washing out the latter thoroughly with sterile water. By allowing the catheter to remain in place for some time, sufficient urine is collected for examination and will be found free from albumin if the kidneys are sound.

Another though less practicable way of obtaining uncontaminated urine is to catheterize the ureters. As to the causes of this prostatic albuminuria, as we might call it, they are to be found in various irregularities of the sexual function. Constipation is also believed by the author to be a factor in the etiology.

TREATMENT OF LUPUS VULGARIS

Dr. Werther considers the treatment of lupus vulgaris by injections of tuberculin uncertain in results, and only to be employed when other means are inapplicable. The ideal method, he considers, is incision of the diseased patch, and bringing the edges of the wound together with stitches, so as to obtain primary union of the edges; in cases in which primary union is either inexpedient or inapplicable, he advises skin-grafting, either by Thiersch's or Krause's method; by these means deformity may be, in a great measure, prevented. Volkmann's method of scraping with a sharp spoon is a much less efficacious means of dealing with the disease, and causes considerable bleeding; this method he considers should be used only on the extremities. The scarification method of Vidal is a tedious one, is painful, but is a good method in lupus of the nose.

A treatment which the author strongly recommends is the application, to the diseased part, of compresses soaked in a 1 per cent solution of potassium permanganate, and changed frequently; to any ulcerated nodules he applies the dry potassium permanganate powder, and any deep-lying nodule he sticks with a pointed match dipped first in boiling water and then in the dry powder. On account of the simplicity of this method, and the non-poisonous properties of the potassium permanganate, the author thinks this a very good way of treating the disease; its drawback, however, is that it has very little action on the deep tissues.

Of the modes of treatment by the application of caustics to the diseased parts, the writer does not consider any ideal; some, such as pyrogallic acid, cause considerable pain, and if used on large extents of surface, where free absorption can readily take place, may cause symptoms of poisoning. A further disadvantage of all methods of treatment by the application of caustics is the fact that several repetitions are, as a rule, necessary before anything like cure takes place.

Freezing by means of the ethyl chloride spray is considered by the author as a useful means of treatment for lupus of the ear. It should not be used on ulcerated surfaces on account of the great pain which it causes. Burning by the galvano-cautery, or by Paquelin's cautery, he is not in favor of, but the application of hot air to the diseased part, according to the method employed by Hollander, is considered a very good method of treatment.

Treatment by the Finsen light, which is now generally employed in those cases where excision of the diseased part cannot be carried out, has many advantages; it is practically painless, it can be used on the face in cases where other methods of treatment are inapplicable; the scar is very good. Its disadvantages are that the number of applications required before cure is obtained, in some cases, may be very considerable; any fibrous thickening or scar-tissue produced by other methods of treatment cannot be easily penetrated by the rays of the lamp and this method cannot be used for lupus of the nose.

The x-ray treatment has the advantage that it can be applied to large surfaces at one time, but it has the drawback that one cannot tell how intense the inflammatory reaction will be, and there is danger that this may be excessive after a few applications. The same objection holds of the treatment by radium.—*British Medical Journal.*

ERRATUM

In the formula for suppositories for the treatment of bed-wetting (CLINICAL MEDICINE, January, 1907, p. 75) an important error crept in. The dose of strychnine sulphate should be 1-150 and not 1-15.

GLEANINGS *from* FOREIGN FIELDS

TRANSLATED BY E. M. EPSTEIN, M.D.

A STUDY OF VERATRINE

The source, chemistry, physiological action and therapeutic uses of this important alkaloid

SABADILLA (Cevadilla, Cevadille, Fr. Cod.; Indian barley caustic, E.; Sabadillsamen, Lausekörner, G., Cebadilla or Cevadilla, Sp. Sabadilla officinarum, Brandt; Veratrum officinale, Schlecht; Asagræa officinalis, Lindt; Schoenocaulon officinale, A. Gray.) is a liliacea of the veratra suborder. Its perennial bulb has a tuft of very long leaves resembling those of the gramineae, and a floral scape terminating in a spike of flowers simulating the inflorescence of wheat. The plant is a near neighbor to colchicum, and its habitat is Central America. Its seeds are the sabadilla grains.

Veratrum (V. album, L.; in French *le viratre*, or *varaire blanc*, or also white hellebore) has a large perennial rhizome with a stem reaching up to a meter and a half (59 inches). The name white hellebore is misleading, as hellebore belongs to the Ranunculaceæ. The stem of the Veratrum album carries long elliptico-lanceolate leaves, having a plication from one end of the leaf to its other end. These leaves are sometimes confounded with those of yellow gentian (Gentiana lutea, L.) which, however, are not plicated, and whose nerves anastomose with each other, as is the manner of all dicotyledons. This confounding has given occasion to severe poisoning, in the following way: In our (Switzerland) mountains where veratrum covers vast humid and marly pastures, the peasants preserve their butter by wrapping it in gentian leaves, and at times they mistake and use the veratrum leaves for the same purpose, and this simple contact is sufficient to impart to the butter the poison contained in the veratrum leaves. This circumstance gave me once the opportunity of observing this unique manner of poisoning with veratrum. The greenish flowers form at the summit of the stem a pyramidal raceme of quite singular effect by its silvery green and being divested of the great leaves of which I spoke.

Veratrum nigrum, L., has dark-brown violet flowers. Its habitat is the Alps, and for the rest it resembles its white congener.

The rhizome of white veratrum was used by Hippocrates and his school against mental diseases. Later on it played the part of an emetic and febrifuge. Its effects are those of veratrine.

Externally it is a sternutatory, and has also been used against the itch.

Its content of alkaloids varies, as is the case with all other plants which we have examined for years until now. There happen to be good and bad years for veratrum, and this is the reason that the rhizome of veratrum is not used at all in medicine. It has been replaced, and so, too, were its galenic preparations, by veratrine, which

is more certain and more easily manageable. And yet it is, properly speaking, not so great a remedy, although it has a very marked and incontestable place in alkaloidotherapy.

Veratrine ($C_{37}H_{53}NO_{11}$) is found in cevadilla seeds. Veratrum album has nothing of it. It is an amorphous and resinoid mass, which easily decomposes into veratric acid and verine.

Protoveratrine ($C_{32}H_{51}NO_{11}$) is found together with jervine in the rhizome of veratrum album. It is a crystallizable body about as active as aconitine.

Crystallized veratrine or *Cevadine* ($C_{32}H_{49}NO_9$) is found in the sabadilla seeds.

Official veratrine is a mixture of crystallized and amorphous veratrine, and of soluble and insoluble cevadine. This is the substance used in medicine (Schmiedeberg).

Veratrine and protoveratrine act on the terminals of both sensory and motor nerves. Also, the nerves which preside over the secretions are affected by the alkaloid, whose actions are noticed equally on the cerebellum and on the medulla oblongata.

The striated muscles are singularly affected by veratrine; they contract rapidly when excited, but come back to their previous state very slowly. The movements become clumsy, incoördinate, and stiff. This action shows itself even in muscles that have been curarized, in which case every contraction disengages an exaggerated quantity of heat, showing the abnormal intensity of metabolic (catabolic) action.

Protoveratrine has not so great an action as veratrine. At first it seems to augment the contractile force of the muscle, but the action is of short duration and very soon gives place to fatigue.

The heart muscle is no exception to this law. The diastole becomes longer under the influence of veratrine while the systole is not changed.

In mammalia veratrine provokes the flow of saliva, vomiting, colics, and abundant alvine dejections.

The nerves of sensation in the skin, tongue, pharynx, stomach, conjunctivæ, and nasal fossæ are irritated by this alkaloid. Hence the sneezing, lacrimation and pyrosis, and on the skin a feeling of heat and prickling without the production of redness being produced by this alkaloid. Then the sensitiveness is blunted at the same time while there is a feeling of cold produced. This action justifies the employment of a veratrine ointment in neuralgias.

Protoveratrine anesthetizes without previous excitement.

Veratrine provokes convulsions and paralyzes the vasomotor centers and those of respiration. After exciting the cardiac nerves it paralyzes them and diminishes the myocardiac energy after having accelerated it transiently. Hence faintings and true collapse from medicaments show themselves by weakness, scotomata, extreme debility and relaxation, feeble and irregular pulse. The skin becomes cold, pale, and the temperature falls.

These alarming symptoms may be observed after the ingestion of only one dose of three milligrams (about gr. 1-20) of veratrine acetate.

Formerly veratrine was much used as an antipyretic and was much in vogue in the treatment of pneumonia. The late Professor Demme, of Berne, related that the janitor of the De l' Isle Hospital used on principle to give a dose of veratrine to every new-coming patient whom he suspected of having pneumonia, before any physician had seen the patient.

One of our contemporary great surgeons, Kocher, wrote his thesis for the doctorate on the therapeutic action of veratrine.

The fall of the temperature and the diminution of the number of respiratory movements and of the pulse beat are certain facts, but it must not be forgotten that these are the prodromata of the dreaded collapse. That is to say, the therapeutic use of veratrine must be guided by prudence which is the exclusive attribute of dosimetry. Five milligrams (about gr. 1-13) may produce toxic effects which will have to be combated with tannin and lavage of the stomach.

Therapeutic Use.—In diminishing the torrent of the circulation veratrine decongests the skin and the envelopments of the nerves. Hence its incontestable utility in cutaneous eruptions, and specially in herpes zoster. Its action on the nerves themselves and on the muscles makes it a very active medicament, although somewhat neglected in neuralgias, tremblings, spasms, especially that of tetanus.

The Charles Chanteaud granule is dosed in half milligrams (about gr. 1-134, the same as that of the A. A. Co.). It is used very often with nervine alkaloids, such as hyoscyamine, cicutine, morphine, quinine and strychnine especially. Its administration ought always to be made after the dosimetric way.—Dr. Robert Tissot, in the December number of *La Dosimetrie*, 1906.

—:o:—

Tissot has barely touched upon the therapeutic possibilities of this remedy, which aside from its circulatory and decongestive action is undoubtedly a powerful eliminant. In eclampsia, for instance, it is *the* indicated remedy, while useful, as the author says, in tetanus. In the sthenic pneumonias it is peculiarly useful, though we prefer to combine it with aconitine and digitalin.—Ed.

SPARTEINE

The four essential physiologic characteristic actions of sparteine are: (1) Rapid action; (2) augmentation of energy which it gives to the heart; (3) the regularity which it imparts to the contractions of this organ; and (4) the indifference of sparteine with regard to the blood pressure, which it neither elevates nor depresses.

Sparteine sulphate is therefore indicated rationally in the following cases: (1) Whenever the heart gives way, whether because it has undergone a change of tissue, or because it has become insufficient to compensate for obstacles to the circulation; (2) when the pulse is feeble, irregular, intermittent, or arhythmic; (3) when the circulation has become slower, or accelerated pathologically; (4) in cardiac asthma, cardiac dyspnea, in pericarditis, in nervous arhythmia, in asystole; (5) in functional trouble of the heart, but here it must be given in small doses, especially when the trouble is due to a nervous impressionableness, say two or three doses of two centigrams each (gr. 1-6); (6) in valvular affections with or without compensation; (7) in painful angina pectoris, in neuralgia of the heart due to a reflex origin; (8) in the outset of exophthalmic goiter, it is to be given either alone or combined with quinine; (9) lastly in morphinomania, alcoholism, when we desire to rid the patient of his baleful habit.—Houde's *Revue Therapeutique*, June, 1906.

OXYCAMPHOR

Oxycamphor was produced by Dr. Manasse, of Munich. It is a white crystalline powder, soluble 2 per cent in cold and more in hot water. The solution smells and tastes slightly peppery and bitter.

It decreases the irritability of the respiratory center without affecting the general nerve centers. It is therefore effective in dyspnea, producing a quite even and slow respiration, as for instance in cardiac lesions. When given in appropriate doses it has no harmful side effects.

It does not keep well in its solid form, and is therefore found in the market in a 50 per cent alcoholic solution under the name of oxaphor. A. Ehrlich praises the remedy in cases of cardiac dyspnea and other circulatory dyspneas: "Especially noteworthy is the patient's feeling of well-being as soon as he is relieved from the objective dyspnea. It was successfully used in some cases as a direct hypnotic."

The dose of oxycamphor for adults is 1-2 to 1 gram (gr. 7 1-2 to gr. 15) or in the solution of oxaphor 40 drops equal one gram (gr. 15).

STOVAINE AND COCAINE: TOXICITY COMPARED

Dr. Baylac communicated the results of his researches on the subject in the title

above to the *Societe de Medicine de Toulouse* at their meeting, January 22, 1906.

The clinical symptoms of stovaine intoxication remind one of those from cocaine, and Dr. Baylac described one form of it as *hyperacute* or overwhelming, another one as *acute*, another form as *subacute*, and another one still as *slow* or *chronic*.

To study out the toxicity of either we must take account of the kind of solution used, of the path of penetration, and of the method pursued. Dr. Baylac always determined what was the minimum mortal dose, which is the one important point for the therapeutic indication.

Stovaine is comparatively feeble hypodermically, very strong intrapleurally and intra-arachnoidally, and its maximum effect is intravenously.

A one per cent solution of stovaine given intravenously is nearly three times weaker than that of cocaine; for while it takes 0.010 (gr. 1-6) of cocaine per kilogram (about 2 pounds) weight of a rabbit to kill it, it will take 25 to 30 centigrams (gr. 4 1-6 to gr. 5) of stovaine to produce the same effect. In a solution of one to two hundred the toxic effect of cocaine is at 22 milligrams, while it will take of stovaine five centigrams to produce toxic effects.

By the intraserous way (intrapleural) the toxic mortal dose of cocaine is from 15 milligrams to 2 centigrams (about gr. 1-4 to gr. 1-3) it is for stovaine 3 centigrams (gr. 1-2).

By the hypodermic way the difference is not so marked, yet the toxic effect of stovaine is a third that of cocaine, viz: 18 centigrams for stovaine and 12 centigrams for cocaine (gr. 1 1-3 for stovaine and gr. 4-5 for cocaine).

The action of stovaine is similar to that of cocaine but that of stovaine is of much shorter duration in its effect. You can make a series of intravenous injections at short intervals with stovaine, the total amount of all the injection exceeding much that of one mortal dose at once, and yet the animal will not succumb. This shows that stovaine is destroyed, or modified in the organism.

Dr. Baylac tried all possible means to verify Dr. Pouchet's claim that stovaine has bactericidal or antiseptic properties but could not constate it by all he tried. Leaving out of question the bacteriacidal or antiseptic properties of stovaine, which it has not, but remembering that it does not produce vasoconstriction as cocaine does, that it has a tonic action on the heart (Pouchet) and moreover that its net cost is less than that of cocaine, we have a right to conclude that stovaine merits to be substituted for cocaine.

INCOMPATIBLE MIXTURES

Oleum cadeni gives with liquid paraffin a turbid, dirty mixture from which the oil of cade soon separates and the supernatant paraffin is lightly colored and has a brown ring on the surface.

Salol, benzonapthol and thymol mixed together form, according to Formenti, in *Pharm. Ztg.*, 1905, p. 846, a syrupy fluid owing to the combination of the salol with the thymol, and also by adding of salol to an alcoholic solution of thymol. In this case there is a formation of oily drops which fall at last to the bottom.

Stovaine gives precipitates with alkaline, alkaloid, and sublimate solutions. In cleansing, therefore, of the hypodermic syringe after using it with the above solutions it must be thoroughly washed out several times with distilled water, or with a physiologic salt solution.

Styrax liquidus does not mix with paraffinum liquidum.

Crurin (Chinolin-bismuth-rhodonate) is highly recommended in ulcerations of the leg.—*Pharmac. Centralhalle* 1906, pr. 74.

Flies cannot be destroyed by killing them, for they multiply too rapidly. Flies lay 200 eggs on the average, and according to careful observation one fly will produce in six generations one hundred milliards, i. e. 128 with 14 ciphers. The surest way is to kill the larvae with crude coal oil when they are hatching on manure heaps.—*Pharmac. Centralhalle*, 1906, p. 119.

HYOSCINE SLEEP IN OBSTETRIC PRACTICE

A review of the phenomena following the administration of hyoscine, morphine and cactin during labor, with the citation of cases. Reprinted from the Medical Record of January 12

By WOODBRIDGE HALL BIRCHMORE, M.D., Brooklyn, N. Y.

SINCE the rediscovery of the conditions under which the deep sleep, resembling death in its soundness, of which the tradition had come down through the ages, could be produced, men in various parts of the world have made use of it to obtain insensibility to pain. A few have made use of it in the practice of the obstetric art, and some have furnished to me notes more or less complete of their experiences. From their notes I have gathered certain facts which I have used to form the material for this thesis, which may be considered, I believe, as a statement of the conditions in fact and in practice, on which that great improvement in the obstetric art for which we have long been looking, may reasonably be grounded.

The actual results which have been attained may be summarily stated in very few words; the patient slept, labor came on, and progressed in accord with usual conditions, normally in relation to the details. The labor was not prolonged, far otherwise, and in no case was it needful to use an inhalant anesthetic, although the forceps was used thrice. The only case in which the mother showed any signs of awakening was one not demanding interference. *No results influencing the infant unfavorably were observed*, although most anxiously looked for. Such is a summary of the results, but that this summary may be duly appreciated it is well to consider the whole proposition, theorem, and demonstration in detail. The hyoscine was administered hypodermically in doses of 1-100 grain, in combination with morphine 1-4 grain, and cactin 1-67 grain. This amount was given in solution in 1 Cc. of water, and repeated as required. Much stress is laid upon the absolute purity of the ingredients for reasons which are obvious, but it is of special moment when so small a dose as that of the hyoscine is used that the nearest possible to absolute purity should be attained.

When the Remedy is Given

As a rule, the remedy was given hypodermically, but in one instance the first dose was given per os, and, except for a delay in taking effect, no change from the normal was seen. The first dose was given as soon as the first stage of labor was certainly begun, and was in most cases sufficient to hold the patient until the so-called expulsive pains were distinctly pronounced. The instant the patient began to show the least evidence of perception of pain, the second dose was given. In the cases requiring the aid of the forceps a third dose was given in two instances, but not in the third case,

and probably the second forceps case did not really need the third injection.

The effect upon the patient does not show the variation which might in some sense have been expected, so far as the depth of the sleep and the length of it is concerned, nor did the doses have the cumulative effect which might have been expected. On the question of the length of the nap one group of cases suggests six hours as the normal duration, while another group gives eight hours from the time the second dose was given. But in the case in which there was an eight-hours' sleep, the time between the two doses was less than in those in which the sleep was for six hours. The exact relation between the doses and the length of the nap is still very indeterminate.

Effect Upon the Child

In one instance only was any effect upon the unborn child alleged. In this case the os uteri was dilating, but slowly; and, as the woman complained of the exceeding severity of the "cutting and tearing pains," the physician gave the hyoscine by the mouth rather sooner than the apparently best practice, when the intention is to give the second dose as soon as true labor begins. The mother had repeatedly declared that "this child kicks something awful," and continued to complain for at least four hours after the dose was given, at which time she was becoming drowsy. She was soon fully under the influence of the drug, the unsatisfactory pains of the first stage continuing until she was fully asleep; after this they rapidly improved. The woman slept only five hours, and when she awoke the os uteri was still undilated. The pains continued after she awakened in about the same force as during her sleep, but she suffered much less than before her nap. She now noted that the child had ceased to kick, and it was some hours before "the boy recommenced his exercise, which he did gradually, and continued to cause discomfort as long as he was able." The os uteri was not fully dilated until well on in the evening, and the mother having received a second injection at the beginning of real labor slept until after the birth of her child, becoming somewhat restless at the end, but not regaining consciousness until after the baby had been cared for and all provision made for the comfort of the mother. In one other case there was strong evidence that the baby was put to sleep, but in neither case is it proper to regard the fact as actually proven. All direct evidence of long-continued interference with the actions of the child after birth is wanting, and in only one instance was any effect positively affirmed by the physician attending.

Effect Upon the Mother

Apart from the influence upon the direct progress of the labor, the effect upon the mother was most noteworthy, first as quite hindering the mental disturbance which pain and suffering in all cases produce. The effect was fully covered by a remark made by one who used it: "Objectively, as evidenced by the mother's condition, it appeared a preposterous proposition to say that she had given birth to a child." The mother shows no signs of exhaustion, and although the resistance (passive) of the tissues must be quite the same, it can be clearly seen that no spasmodic resistance, by inhibition due to pain, in any way interferes. This absence of the inhibitory (active) resistance is perhaps the most remarkable effect produced. One woman whose labors had been notably tedious was delivered of her fourth and largest baby in less than two-thirds the time of the shortest of her previous experiences, and in one-third the time of her longest. She had always been notably restless and hard to manage, but in this case she simply slept through the whole series of phenomena; she did not awaken until she had been removed into a clean bed and provided with all things needful. At the birth of the head, although soundly sleeping, she made certain spasmodic actions and changes of position which caused some surprise to the nurse and attending physician. Although the attending physician described them as carefully

as possible, the intention of his words is not clear enough to my mind to justify any attempt to repeat the account, but the conviction is forced upon me, as it were, that the physician's two statements, "Her actions showed that certain combined movements should occur which are inhibited in the large majority of cases," and "It was as if I had seen the natural action of a woman for the first time," really contained an important truth.

Significance of Phenomena

If an attempt is made to describe the phenomena from the time when the patient falls asleep in the first stage of labor to the end of the slumber, it must be admitted that the remarkable character of the phenomena is too plain to be missed. If Byron Robinson's theories are accepted in full, and we regard the action of the muscles usually controlled by the cerebrospinal system, we cannot but wonder at and question how the coördination is maintained. In two cases the woman rolled on to the left side, partially flexed the left leg upon the thigh, and the thigh upon the pelvis, so that the child was, or rather would have been, supported and guided on to its back by the act of extrusion. The right lower extremity extended to the extreme, the toes pressing against the foot of the bed, gave a "fixed point" for the muscular leverage.

In the majority of cases the heels were brought up close against the buttocks, and in these cases the muscles were made tense, lifting the buttocks completely off the mattress at the instant of the birth of the head, yet there was no sign of awakening. The steady, slowly increasing, and tremendous force exerted by the abdominal muscles during the expulsive pains, attracted the attention of all observers. One who has seen great numbers of labors said that he never saw anything like it before, and added, in an extended opinion, that the great advantage over chloroform is easily seen in that, with the hyoscine-morphine sleep, reflexes are greatly augmented, not suppressed.

All who have made use of hyoscine a few times appear to regard this restoration of the truly natural conditions as being of almost as much importance as the unconsciousness from sleep. "If we use hyoscine the mother cannot do mischief by her own excited and voluntary or semi-voluntary actions," is a remark made by every user.

Is there Danger of Perineal Rupture?

It appears probable at first sight that there must be greatly increased danger of perineal rupture, and I so suggested to some whom I was able to question. All of them said that proof of this proposition was wanting, and one man said: "I am quite sure that you are wrong in this opinion, for the rupture of the perineum, when not due to haste of the accoucheur, is due to the excitement of the mother. From what I have seen I am inclined to regard the dilation of the perineum much as I regard the dilation of the os uteri. It is gradual, and the obstruction, although usually needless now, must have been of importance once. The waking mother makes convulsive efforts to overcome the resistance of the perineum, and when she feels the obstruction she has a Titanic, if not a tetanic spasm, to force the head by, and then the shoulder catches. But in the induced sleep the first perineal pains are not convulsive, and, instead of two or three ineffectual attempts ending in an almost convulsion, the sleeping woman has a dozen small pains gradually stretching the sphincter, and, beside this, the head is not held so firmly against the sphincter, or rather against the fold of submucous tendon, that this cannot roll; and after once or twice trying, the whole apparatus—tendon, muscles, and mucous membrane—slips out of the way, and the last expulsive pain comes on. For my part, I regard this use of this anesthetic as important because it has restored the conditions of natural labor; I know my expression is bad, but somehow the use of the hyoscine-morphine-cactin anesthetic gives the management of labor back to the reflex ganglia from which the brain had, in women, taken it away.

Naturally, the objection is made that in some ways this theory proves too much; that in the apes the difference in position

made the perineum a less important organ, but this objection is countered by saying that we really know little of labor in the highest apes, and nothing of what it may have been in other—the simio-human race. "Anyway, in the hyoscine-morphine sleep the 'perineal pains' are more orderly," insisted this physician.

The Use of Forceps

In the cases referred to in which the use of the forceps was judged to be needful, the cases in no way differed from others of their kind in which a more transient insensibility is obtained by the employment of familiar anesthetics, but owing to the activity of the natural forces of parturition the delivery in fact rather suggested the use of the forceps in the conscious woman's behalf than in that of the unconscious one. No special details or unusual reasons for the use are recorded. Certainly the use had no connection with the insensibility of the patient. One or two suggestive facts were mentioned in this connection, as if the accoucheurs had in their minds a strong suspicion, amounting almost to a convinced opinion, that the conditions of the use of the forceps would be found to differ, and perhaps to differ profoundly, from the cause which is by many believed to be the cause most frequently demanding their use, namely the threatened exhaustion of the mother. This because all who have made use of this narcotic, without any exception, insist that exhaustion, even to a small degree, is hardly to be perceived. The absence of excitement, the regularity, and above all the maturity of the expulsive efforts, the fact that none of the vitality of the mother is expended in useless and exhausting, because ineffectual and disorderly efforts, promises to lessen greatly surgical interference, the special interference demanded by the mother's exhausted state.

Speculations and Conclusions

Such data as are given here must be regarded only as so many facts, observed by competent and experienced men indeed; but considered simply as facts they are quite barren of usefulness, for it is only when we consider them as the data to be examined by logical processes that they, becoming living and productive, are the foundation on which we can erect a useful theoretical structure.

In the first place, the importance of this anesthesia in obstetric practice is amply demonstrated, and experience shows that it can give us all the aid in quieting the patient that any narcotic can give, and in addition it gives us a practical anesthesia of prolonged duration, and gives this anesthesia without risk to either mother or child. Further than this, we have the most abundant proof that this practical, anesthetic sleep is quite without danger because the respiratory system is not seriously interfered with, nor is the heart's action restrained. It is also clear that the reflex actions which find their point of departure peripherally and return to the periphery again from spinal and sympathetic system ganglia, specifically from the "pelvic brain" of Byron Robinson, are not restrained, but rather they are augmented by the action of this drug. Clearly, then, it would seem from investigations thus far, that in this anesthetic combination we have found a sedative to the cerebrospinal axis, but not to the ganglia connected with the reflexes of common life.

This fact alone is of no trifling importance, but the import grows when we note that in shutting the door, so to say, to the influence of all the inhibitory actions, it leaves quite unopposed the influence of the sympathetic system, and the physician using it need have no fear of any accidents to disturb the normal evolution of a birth, losing our conclusions upon the experience thus far reported.

It is, then, for the accoucheur the ideal anesthetic, one which (so far as we yet know) he can use to obtain the desired effect without fear of an overdose. So far as I have been able to learn no one has yet had any experience with an excessive dose. Until this excessive dose shall have been given our information remains in a sense defective, but we certainly know that all we need to give can be given without risk or danger.

Finally, and perhaps of all the most important, the use of this anesthetic has stripped motherhood of its horrors. The dread of pain has been the great dread of the coming birth; until this discovery the "pains of maternity" remained a horrid and incontestible truth, but these have vanished and the exhausting ordeal of motherhood is gone, to be seen no more.

NINETY-TWO CASES OF HYOSCINE-MORPHINE-CACTIN ANESTHESIA

I have been saying, or rather thinking, every day that I would send you a report of ninety-two cases up to date in which I have used the hyoscine, morphine and cactin compound anesthetic. I have used it in extreme cases of age, that is from ten years to eighty-two years, and while I had two deaths, they were not in my opinion, due to the anesthetic.

The boy of ten years on which it was used, received a severe railroad accident necessitating the removal of one leg above the knee, while the other leg was denuded of fully one-fourth of its integument. On the seventh day he developed tetanus. I gave him hypodermically one of the tablets which controlled the tetanic spasms. A tablet was given twice a day for several days, when it was dropped to one tablet a day. The other treatment consisted in the use of antitetanic serum, alternating its use with injections of carbolic acid. He made a perfect recovery, which I am unable to attribute to any one of the remedies used. I am certain, however, that the anesthetic made the little fellow comfortable at least. The serum and carbolic acid were injected intravenously and subcutaneously respectively.

The gentleman, aged 82 years, physician, senator of Ontario, was given one tablet hypodermically two hours previous to the operation on Saturday, January 19. About sixty drops of chloroform were used. He had a chronic intestinal obstruction due to a malignant growth in the cecum. I short-circuited, with the McGraw ligature, the ascending colon with the ileum. The operation was done in the morning at 8 o'clock and in the afternoon he asked why they had not taken him to the operating room. My experience has been very satisfactory with its use. For instance in one case in which I did a double amputation, three tablets were given and no chloroform used. The patient woke up late in the afternoon asking why he had not been operated upon, a usual statement in most instances.

In about three of the cases the number of the respirations dropped to from six to ten. In the others the temperature, pulse and respiration changed but little from start to finish. Nausea and vomiting have occurred in a few cases; in one quite severe, probably due to the chloroform that we used; in the others these symptoms were very slight.

The following are some of the cases where I used the hyoscine–morphine–cactin tablets: Trephining of the skull; removal of tubercular glands of the neck; thyroidectomy; resection of ribs for empyema; intestinal resections; gastroenterostomies; appendicectomies; nephrectomy; hysterectomies; herniotomies; rupture of bladder; removal of vesical calculi, and several genitourinary and rectal operations; resection of the head of the femur; amputation of the legs; treatment of fractures, etc., etc.

The hyoscine, morphine and cactin tablets act and assist admirably in the examination, diagnosis and treatment of fractures, in the allaying of pain after operations—in fact in any case of severe pain where morphine is indicated and without the unpleasant effects of the latter.

A number of our men here to whom I have reported its value in obstetrics have been very much pleased with its use. I wish to state that in nearly all cases I have used all the way from ten drops to four drams of chloroform after giving the tablet or tablets. Another point I have noticed is that although the patient is fully under the influence of the anesthetic there has been considerable rigidity during some of the abdominal operations that I have done. As soon as I can find time I will report the cases in detail. The after-effects are cer-

tainly much better than in any other anesthetic that I have used.

This is a hurriedly written letter which you can refix and use as you please, if you wish, for publication.

H. O. Walker.

Detroit, Mich.

—:o:—

We are greatly pleased to present this preliminary report of cases operated on by Professor Walker under the new anesthetic. The doctor has promised us a full and detailed report of his experience with the anesthetic combination, which we hope to present to our readers next month. When strong men like Walker, a great surgeon, Professor of Surgery in the Detroit College of Medicine, one of the leaders in the American medical profession, indorse a good thing like this, it's time for every man who is really *alive* to "sit up and take notice."—Ed.

A LETTER FROM DOCTOR THRUSH

Dear Dr. Abbott:—

I have read with considerable interest your reply, also that of Dr. Robinson, in relation to the criticisms of Dr. Wood as found in the *Journal of the American Medical Association*, issue of January 12, 1907. I had already noted this criticism, but anyone well versed in the subject of pharmacology would at once see the great disparity between Dr. Wood's statements and the tablet you prepare and recommend for anesthetic purposes. My reasons for the above conclusions are as follows:

1. Your tablet contains hyoscine hydrobromide, gr. 1-100, morphine sulphate, gr. 1-4, cactin (active principle cactus grandiflorus), gr. 1-67, two tablets being sufficient in the average case; while Dr. Wood's criticism and mortality statistics refer to the use of scopolamine hydrobromide and morphine sulphate, *without the addition of cactin*, which is a valuable cardiac and vascular stimulant. The dominant action of hyoscine is on the cerebral cortex; it is also a centric depressant of respiration and depresses *the whole motor cord*. Its influence on the circulation is only slight (Wood's Therapeutics, page 188). In large doses it is a vascular and heart depressant and respiratory paralyzant.

Cactin increases the energy of the cardiac contractions, heightens arterial tension, and has a *direct stimulating action on the motor centers in the cord* (Shoemaker's Therapeutics, page 283). Myers (Potter's Therapeutics, page 226) has physiologically studied cactin, and found it possessed a very decided stimulating action upon the heart, the arterial tension and *the spinal motor centers*. Therefore any one can readily see by a comparison of the physiological action of these two drugs that cactin is *therapeutically antagonistic* in its action to all undesirable action of hyoscine (or scopolamine), particularly on the motor centers in the cord, as well as also upon the heart and vascular system.

How many of the cases so far reported under the title "scopolamine-morphine anesthesia," in which death resulted, were cases in which the tablet used contained *cactin* in its composition? (Not one!—W. C. A.)

I have not been able to find a single one. If anyone knows of any, I would like to hear from him.

No fatal case of poisoning by hyoscine alone is on record according to the elder Wood [not Wood, Jr., our critic] as quoted in his text-book, page 190.

2. Hyoscine and scopolamine, while of the same chemical composition, differ in physiological results for the following reason:

In the first place, hyoscine, scopolamine and cocaine are all of the same chemical composition, viz., $C_{17}H_{21}NO_4$, yet the tyro in therapeutics knows the physiological action of cocaine differs greatly from the other two, in fact it is almost entirely different in its action. How, then, can we account for this? By the fact that there is a different arrangement of the atoms composing the molecule. Amorphous and official phosphorus have the same chemical composition, yet differ absolutely in their physical and chemical characteristics as every one knows, so that the fact that two substances have the same chemical com-

position is no evidence that they have the same chemical, physical or physiological characteristics.

Hyoscyamus (according to Wood's Therapeutics, page 184) contains two alkaloids, hyoscyamine and hyoscine. Amorphous hyoscyamine of commerce is a mixture of hyoscyamine and hyoscine. Hyoscine is separated from it as a syrupy liquid which yields crystallizable salts. Shoemaker (page 544) and Potter (page 348) consider hyoscine a derivate of hyoscyamine. As mentioned by Shoemaker (*New York Medical Journal*, October 7, 1905): "It may be of importance just in this connection to note, as pointed out by Hesse, that commercial scopolamine hydrobromide contains an admixture of a small proportion of another powerful mydriatic alkaloid known as 'atroscine,' which is isomeric with hyoscine or scopolamine. Atroscine apparently bears a similar relation to the latter as regards mutual convertibility that hyoscyamine does to atropine. Some pharmaceutical authorities indeed allege that scopolamine hydrobromide *should be erased* from the German and United States Pharmacopeias, on the ground that it is merely a mixture of hyoscine hydrobromide and atroscine hydrobromide, and not itself a definite chemical compound. I call attention to this interesting point merely to note the fact that commercial scopolamine hydrobromide may differ in its physiological action, owing to the variable quantity of atroscine present; *this may also offer an explanation of any difference that may be observed between the action of scopolamine hydrobromide and hyoscine hydrobromide.*"

Therefore, as a result of the above facts, I think we are justified in saying that the mortality-statistics which have been quoted from time to time relative to "scopolamine (from scopola) morphine anesthesia," do not apply to *hyoscine* (from hyoscyamus) morphine anesthesia, and I feel sure that they do not apply to "hyoscine, morphine and cactin anesthesia," as the above study of the physiological action of the respective drugs readily shows at least in my opinion.

I would like to hear of a single case of death, the result of the use of the *cactin* combination.

M. Clayton Thrush, Ph. M., M. D.
Philadelphia, Pa.

—:o:—

This letter from Prof. Thrush, in view of the recent contributions of H. C. Wood, Jr., in *American Medicine* and the *J.A.M.A.*, is peculiarly interesting. Dr. Thrush is instructor in pharmacology in the Medico-Chirurgical College of Philadelphia and a competent authority in problems of this kind. Read carefully what he has to say. It's the "meat of the cocoanut"—brings the subject right down to essential and fundamental facts. As Dr. Thrush most powerfully brings out, this whole attack upon us falls to the ground unless fatalities can be shown to have resulted from the proper use of the Abbott tablet containing cactin. Where are these reports?

The hyoscine-morphine cactin combination is making new friends every day, and many. Many reports have also come in attesting its value as an analgesic, as well as an hypnotic where morphine is not contraindicated, the combination producing maximum effect with minimum of drug (morphine) used and with no disagreeable after (over) effects whatever. Some will be found in this issue, others will follow. Not a fatality or dangerous symptom from its use has yet been reported.—Ed.

AN UP-TO-DATE HEMORRHOIDAL OPERATION

W. E., male, 37 years old; of splendid physique and full-blooded. Never sick, but for a number of years had been troubled with piles which used to come down, but not during the last two years. For the last six months hemorrhage was so profuse that he was exsanguinated and had barely strength to get from the closet into the living rooms and then had to rest for hours in order to get any strength to return.

At 4 p. m. I went to his house with one of my trained nurses who stayed with him during the next four days. His only

nourishment for that day was a thin soup and at evening a brisk purge of magnesium sulphate was given, followed by an enema. At 6 a. m. the next morning another enema was given and at 7 o'clock the nurse gave a hypodermic of one tablet. Throughout the four days the patient was watched carefully by myself or the nurse who reported to me everything that might be of interest.

At 8:30 the patient was perfectly conscious but felt sleepy. Pulse 74, respiration 15. There being no particular result from the first tablet the nurse (as I had instructed) gave another. Pulse soon went to 86, respiration to 10. Soon after I arrived but found the patient easily aroused, saying he felt like having a good long sleep; but there was no relaxation and the moment he was touched he could open his eyes and ask if it wasn't about time he should be unconscious.

At 10 o'clock I gave the third tablet and in 20 minutes he seemed deeply under its influence, with a pulse of 130 and a respiration of eight. I thought he was doped this time and proceeded to put him in the proper position. Noticed that there was no relaxation as in ether or chloroform but thought surely with that pulse and respiration I'd better be getting at work.

Much to my surprise when I went at the sphincter he just rose up and looked at me but was easily pushed back by the nurse. He was not conscious of this or any pain, he said afterwards. Whenever I dilated he would squirm so I had the nurse give a few inhalations of chloroform which did the business.

Found two capillary tumors high up which were somewhat necrosed and which were treated by the clamp and cautery. Here I will say I use the old-fashioned cautery irons and a gasolene torch and have my irons at a dull glow, taking care to sear the stumps thoroughly after applying the clamp and snipping off with scissors.

An external thrombosed pile of large size was simply excised.

A large rubber drainage tube covered with a square of gauze, making a sort of tent, was dipped in sterile sweet oil and pushed well up to the site of the stumps and left *in situ* to facilitate passage of gases.

The usual dressing with a T bandage was applied and patient drawn from the edge of the table back to his full length. At this time he had stertorous breathing but roused and helped us to move him toward the head of the table.

My nurse is a graduate of the Lawrence, Massachusetts, General Hospital and has had in her three years' course much to do in operative technic but this sort of anesthesia nonplussed her. However, I was learning too.

Pulse was now 100, respiration 10. Once or twice his breathing grew shallow but shaking slightly roused him, when it was all right.

Two hours later muscular relaxation was pronounced and I am forced to think then was the proper time for operation. I think many begin too soon and next time I shall wait long enough for the reflexes to be abolished and try to get through without recourse to chloroform.

At 4 p. m. patient "came to," only remembering when we brought him to the end of the table prior to operation.

No nausea, no pain except the smarting of the rectum.

No great discomfort except once from retained urine that I was late in drawing. The bladder must be watched or it will cause much distress from pressure near the wounded area, even though not greatly dilated.

In just one week patient was sitting up in a chair, dressed and in his right mind, and greatly pleased that he did not have to be etherized, as he said once before when he had a toe amputated the ether made him crazy for a time and deathly sick for days afterward.

My conclusions are that this form of anesthesia will be a great boon in many cases of this kind, where no haste is necessary or where the other anesthetics are contraindicated.

However, I shall want more experience before I use it in a laparotomy, but think

it can be so used if the operation will wait long enough for its full effect. It would hardly do for a patient to rise up and want to argue the matter when one was about to dissect out an adherent appendix.

LESTER W. LORD.

West Ossipee, N. H.

—:o:—

In a later letter Dr. Lord writes: "Only two years ago I lost a patient under the old scopolamine-morphine anesthesia, while I was getting a swinging splint adjusted for fracture of the neck of the femur. I had studied the case carefully, it being where other agents were contraindicated, and the result was that I felt justified in using it in but few cases. I have been cautious with the hyoscine, but I am gaining courage that it will substantiate your claims. Naturally it will have to bear the ill reputation of the scopolamine for a season, until surgeons will speak up in its defense. I shall try it in the next laparotomy I have, if I have the selection left to me. Don't mind young Wood, even if his ancestors are illustrious; the truth will out, give it time. I am young myself, but I don't disparage a drug till I find it unworthy."

Good for you, Doctor! We believe that the vast bulk of the medical profession of this country are like yourself—prepared to do their own thinking, basing their opinions on experience—and results. We are willing to leave the matter of this anesthetic to such a jury.

As for ourselves, the possibilities of this anesthetic keep growing on us. Just think of its utility in the reduction of fractures, to give relief from extensive burns after fires and explosions, and in other emergency conditions, such for instance as in railroad accidents, where so many are injured that the capacity of the surgeon is taxed to the utmost. What a boon a supply of these tablets would be then! In most cases a single injection will give relief from pain—far more than can be obtained with morphine. In more severe cases, demanding immediate operation, the means for general anesthesia may be always at hand—even in the vest pocket. If you could see the reports you wouldn't wonder that we are enthusiastic.—ED.

OPERATION ON PATIENT EIGHTY-SIX YEARS OLD WITH HYPODERMIC ANESTHETIC

I am going to report to you my first and only experience with the new anesthetic, hyoscine, morphine and cactin. The patient was a lady 86 years of age, under care of Dr. J. A. Young, of this place. Disease, gangrene of the foot and lower half of the right leg. Besides being aged she was suffering from extreme emaciation, with weak irregular heart action; calcareous degeneration of the blood vessels—the radials and carotids being like chalk—pipe stems.

Her condition was such as to contraindicate the use of chloroform or ether as anesthetics, or any other anesthetic, so far as known. The question was to amputate and give her a chance of short respite from pain, or let her linger and die in from one to three months. Everything seemed against her standing the amputation and anesthetic, but she was willing to take the chances, so we went to work.

For the twenty-four hours preceding operation we gave her moderate doses of strychnine, to tone up the heart and nerves, but the next day she was almost pulseless. Notwithstanding her unfavorable condition I gave her an injection of the anesthetic at 10:30 a. m. and within one hour she was ready for the surgeon. Not one movement or groan came from her during the knee amputation, which was done by Dr. Young, assisted by Dr. J. A. Griffin.

After operation slow respirations with feeble and sometimes absent radial pulse occurred. She was given hypodermics of glonoin, caffeine, cactin, etc., and artificial respiration was performed for an hour or two; at intervals respirations were sometimes as slow as six or eight per minute. After some 6 or 8 hours she woke up and called for food, was quite rational and remained so up to her death on the third day after operation. What I wish to call

attention to is the unfavorable conditions for the use of the new or any other anesthetic, and the remarkable way she bore it, and the full and complete recovery from same. It was the only chance for relief she had. I am sure that she never could have lived through chloroform or ether anesthesia.

R. H. ENDICOTT.

Oakdale, Cal.

THE NEW ANESTHETIC: TWO BAD CASES WHERE IT HELPED

I enclose reports of two cases in which I used the morphine, hyoscine and cactin compound. I think it is great, especially for country doctors in emergencies where an anesthetist is not to be had.

A Case of Convulsions

Case 1.—Old man, about 70. Called in consultation. Found retention of urine for about twenty-four hours. Patient having convulsions and being held in bed. I gave one tablet hyoscine, morphine and cactin compound. In thirty minutes breathing and circulation were all right. I emptied the bladder and the patient slept about six hours—natural sleep.

Difficult Labor—Craniotomy

Case 2.—Woman, age 20, primipara, in labor about sixty hours, pains stopped. Forehead presentation, considerable hemorrhage. Could not apply forceps on account of occipito-frontal diameter being across the pelvic brim. Gave one tablet at 9 p. m., dilated external parts and tried to turn head, but failed. Forty miles from nearest physician. Decided to perform craniotomy. At eleven gave another tablet and emptied the contents of the cranium. At twelve applied forceps, crushed the skull and delivered the baby. Patient fell into natural sleep and slept ten or twelve hours. Had considerable laceration of the cervix but not much of perineum. Gave specific echinacea with pulsatilla and aconitine. No fever. Made uneventful recovery.

I consider the anesthetic tablets the greatest discovery that has been made in medicine. It is certainly a great boon to the country doctor. Have used it several times for relief of pain and have had no bad results. No nausea, headache, constipation, etc.

RAY B. WRIGHT.

Carrizo Springs, Tex.

—:o:—

And so the reports come in—and strangely enough (in spite of the "should-be's" of our critics) with an astounding and disconcerting (to the other fellow) unanimity of approval. We have room for a fraction only of these reports, which are typical of the mass. Many write, as does Stucky of Lexington, Ky., "I used the anesthetic in three cases with the most surprising and satisfactory results, and will give you a further report later." Let the reports come—just as many of them and just as fast as possible! —ED.

HYOSCINE-MORPHINE-CACTIN: SOME EXPRESSIONS OF OPINION

From the many comments which we have received concerning the new hypodermic anesthetic, hyoscine, morphine and cactin comp., we collate below a few of the typical ones—such as we have room for. The reports are uniformly favorable. There has not yet been the report of a single fatality which can be traced to the anesthetic, while the absence of dangerous or even disagreeable symptoms is remarkable considering the fact that the method is new, its technic still in a partially perfected state, and the conditions under which it has been employed most variable.

Used for Forceps Delivery

I used the Abbott anesthetic hyoscine-morphine-cactin tablets yesterday, in forceps delivery, as follows: At 3 p. m. the patient called for chloroform; instead I gave one of the hypodermic tablets, and in ten minutes she was asleep and aroused but slightly during the contractions, which were coming every three and a half minutes. At 5:30 p. m. I gave the second tablet, and as the head was caught I applied forceps and delivered. The patient awoke at 11 p. m., asking if the baby was

born. Being informed that everything was all right she immediately went to sleep and awakened again at 1 a. m., and asked for a drink and something to eat. She says she remembers nothing from 4 p. m. until she awoke at 11 p. m.

It's certainly the stuff.

H. C. Wolfe.

Grand Rapids, Mich.

Surprising and Satisfactory Results.

I have used the anesthetic in three cases with the most surprising and satisfactory results. I will give you a further report later.

J. A. Stucky.

Lexington, Ky.

—:o:—

Dr. Stucky is president of the American Academy of Ophthalmology and Oto-Laryngology. From other correspondence with the doctor we learn that one of these cases was trephining in a case of brain tumor. We shall await with much interest his further reports.—Ed.

Will Use no Other

I have used the hyoscine-morphine-cactin tablets (Abbott) with much pleasure to myself and comfort to my patients, in producing anesthesia sufficient to do hemorrhoids and curetment. You are to be congratulated on the addition of this combination to our armamentarium. I shall use no other.

G. R. Maner.

Warrenton, Ga.

No Bad Effects

I have used the Abbott anesthetic tablet in many cases and have found none of the bad effects of morphine, or of chloroform or ether alone.

L. C. Toney.

Humboldt, Ariz.

It is Simply Fine

I used the new Abbott anesthetic tablet in my last confinement case and it is simply fine. Two emergency cases were made quickly easy by the same tablet.

H. L. Imus.

Holland, Mich.

Hyoscine, Morphine and Cactin Comp.

I have found the tablets valuable to replace morphine and atropine, as an analgesic as well as for anesthetic purposes. I have used them as an anesthetic in some six cases of surgical work and do not want to be without them when in need of an anesthetic. Nausea is the exception after their use, in fact in the six cases I had but slight nausea in one.

G. L. Pritchett.

Fairbury, Neb.

A Case of Sciatica

I used a tablet in a case of labor with excellent results. I also tried it in a case of sciatica, securing six or eight hours of rest after nearly everything else had failed.

F. C. Beals.

Salamanca, N. Y.

Mending a Perineum

The other day I had my first chance to use the Abbott anesthetic tablet, in mending a perineum. It's a success—just the thing I have been looking for ever so long.

J. G. Fischer.

Alma, Mo.

A Word of Encouragement

Just a word of encouragement with reference to your "scoop" with the doctors by your hyoscine-morphine-cactin compound. I never go into an operation now without it, and we average two a week. It's *just the thing*. I stick to Abbott for quality!

Oliver O'Bar.

St. Louis, Mo.

—:o:—

That's just a few—but enough to show the wide range of cases in which the remedy is being used. In spite of the unfair criticism to which this anesthetic has been subjected—based upon reports made by

the earliest European investigators with samples of commercial scopolamine of unknown quality, some of it known to be poor, quite different from the pure hyoscine which we recommend—the Abbott-Lanphear method of producing anesthesia by hypodermic injection is "taking like hot cakes." Another factor which these critics fail to take into consideration is the action of the cactin in these tablets. It's important, can not be sneered out of court—we have the testimony to that effect which can not be overlooked.

Again we wish to urge every doctor to report his cases, with numbers and in detail. We want to know the truth—all the truth. —Ed.

TYPHOID INFECTION

An old friend writes: "I was unfortunate enough to be caught in the clutches of a typhoid infection; and while I had all the medical attention that heart could wish, through my medical friends, I begged permission to outline my own treatment so far as my physical and mental condition would permit. That during my years of practice I have never been unfortunate enough to lose a case of typhoid fever naturally makes me partial to my line of treatment. With a competent nurse and a diet limited to predigested food, and the use of the sulphocarbolates I pulled through nicely. I crowded my intestinal antiseptics, taking 120 grains every twenty-four hours, for twelve days, this covering the period from the morning temperature of 102-3° F. to an evening temperature of 104-5° F.

"Upon the twelfth day my temperature began a rapid decline, losing within each twelve hours from a degree to a degree and a half. Doctor, one amusing feature to me now is that many of my medical friends say that it was rather problematic as to whether I had a typhoid infection; yet upon its inception I left the diagnosis with three good men, and they did not hesitate to pronounce it a typhoid infection.

"The only reply to the query as to why I did not have a typhoid infection, that I have so far received, is that 'the fever did not last long enough.' One point in my favor, and that I have judiciously guarded in my treatment of all typhoid cases is, a *total abstinence in the use of milk in any form.* I was constantly appealed to, offered the use of buttermilk and sweet milk, and, Doctor, I want to say to you that it is in my experience 'not indicated.' Excluding its use lessens any tendency to tympany, borborygmus, and irregularity in bowel movement.

"You will pardon the personal reference that I have above mentioned, but, Doctor, I conscientiously believe that the use of sulphocarbolates is far superior to anything we have, both as to efficiency, freedom from toxicity and palatability."

—:o:—

We are mighty glad our friend pulled through safely; and while believing the sulphocarbolates did good work, his good constitution and habits, with the life-giving air of Texas, were no small helps.—Ed.

IT GROWS BETTER AND BETTER

Clinical Medicine grows better and better. I have been a subscriber from the first number, so have had the pleasure of seeing its growth from year to year. The advanced price ($1.50) is not unreasonable.

Luther M. Marston.

Los Angeles, Cal.

AN EXAMPLE OF "PROFESSIONAL COURTESY"

Your kind recommendations received, but too late for me to make use of them. Let me tell my experiences! I hope they're unique! I was induced, much against my real desire, to call a competitor, Dr. ——, in consultation, and he immediately schemed to "let me out," and take charge himself. The operator of our local telephone exchange is a friend of mine and informed me that as soon as we returned from the country on this case (I furnishing the conveyance), Dr. —— telephoned to the daughter—at whose home the mother is

during the present illness—to have her mother request of me to have *him* (Dr. ——) come; further, that "the other fellow" (that's me!) did not understand her case, etc. I received this same request; that the mother wanted me to bring Dr. —— again, and this fact was immediately communicated by the daughter to the doctor.

I have treated this man in every way courteously, open-heartedly and honestly, and I feel assured that I bear this reputation among the other doctors. But this passes my limit of forbearance! For some time I have been conscious of the fact that he practises deception, makes a great noise over trifling ailments that a physic or an emetic would promptly relieve; is, in fact, a "bag of wind." I have given these methods credit for his pull. I have, nevertheless, kept my mouth closed, attended to my own business and have not interfered with him.

I have been here eight years and he has been located here five years. The first two years by his methods he swept the locality, but is now losing out considerably. I have met him in consultations and have treated him fairly, never, by word or act, taking advantage of him. He, likewise, has met *me* in consultation, the result invariably being disastrous to me; but I never could find out before where he got in his work.

Now, what is a man to do with such competition? There are only the two of us here and I would like to get along without having to refuse him consultation and send to other towns for help.

K.

——, Illinois.

—:o:—

In every walk of life we have to face competition, fair and unfair. Darwin said that there was not a place where an animal or a plant could win a livelihood but we found a number of animals and plants contesting for it. Those that succeed are not necessarily the best, but they are the ones that succeed. Nature knows no other determinative of superior fitness than success. Why should you expect that every human being, every other doctor even, should always treat you with perfect fairness? Is that the way of humanity? Must every doctor be so superior to the generality of the race as to be always truthful and fair? From Rockefeller down, every man must hold his own with the strong hand—you among the rest.

We are not excusing nor defending your competitor, but simply asking you to see things as they are, not as we would like to have them.

You must yourself determine the best way to meet such a man. It depends on you and him. Our own way is to go straight to the man and place the matter squarely before him; hear his side, acknowledge wherein we have been in the wrong ourselves, and have it out, firmly, fully, but kindly, and with charity to him. If this does not answer, we simply cut him out of our lives, refuse to consult or own acquaintance with him, but above all refuse to say or hint anything to his descredit, leaving those who like him to continue doing so.

Never fear but that if you remain absolutely mum when anybody is abusing you, there will be plenty to defend you, and far more effectually than you could do yourself. There is no reply so far-reaching as the one that is not made. Nor is there anything so completely crushing to a man who is vilifying another than the words, "he always speaks well of you."

See no evil, hear no evil, speak no evil; and always try to think kindly of the other man and feel that if you had his difficulties maybe you would do no better.—Ed.

SEWER-GAS POISONING

I wish to thank you for what light you have given concerning sewer-gas poisoning; but it cannot fully satisfy, and therefore I must take some issue. You state: "The various gases which go to make up sewer gas are certainly not very toxic, at least not in the high dilution in which they are found. Carbon dioxide is the most important, but its quantity is fully as great in any poorly ventilated room, minus the

contaminating sewer odors. Sulphureted hydrogen may be present, but soon makes its presence known, and in small quantities is not dangerous anyhow."

You also say: "It has been shown that bacteria are not given off from moist surfaces and that air charged with sewer gas is no more rich in germs than similar air minus the gas, etc." Witness what Dorland says in The American Medical Dictionary of 1900. "Sewer gas, the mixture of gases and vapors from a sewer; often dangerous from the contained bacteria and from other materials resulting from decay of organic matter."

A gas is "any elastic aeriform fluid." Why may not sewer gas contain the most baneful of ptomaines? The transition process of organic matter into inorganic matter, from whence organic matter was originally taken, is fraught with dangers—ptomaines. Ptomaines may volatilize, as emanating gases, as well as carbon or sulphur gases. Effects differ, of course, upon the living economy, according to quality and amount appropriated, and relative to condition and circumstances of environment and host.

It will not be denied that decomposition takes place in a sewer. This would be impossible, in a large degree at least, with organic matter without the presence of bacteria; as putrefaction is a biochemical process. Therefore, the Lord only knows what chemic products are and are not given off in a sewer. The decomposition of organic matter is very complex. Not only are carbon dioxide and sulphureted hydrogen given off, but even these must be variously modified in nature and effect. To appeal to our grosser sense of appreciation, for example, applying the faculty of smell to the gas of sulphureted hydrogen of a chemical laboratory and comparing it with the differing odor coming from a carcass or a country privy, etc., plainly shows that there are admixtures and modifications in these gases. Therefore we are safe in inferring that other things and different effects are given off than only plain sulphureted gases as well as only plain carbon gases and their effects. To say the least, these latter gases are probably more innocuous than gases pregnant with ptomaines. In this we all agree, it is the dilution that gives immunity and it is the concentration that is fraught with most evil.

In my former writing I referred mainly to the instances of chronic sewer gas poisoning and in the view of those cases we entirely agree. I would like to impress the fact that the most poisonous sewer gas is odorless (Gould). No doubt you are right; ventilation is a subject of study very closely allied to this question, and I am very glad that you so ably referred to it.

ROBERT PETER.

Chicago, Ill.

—:o:—

We are glad to have this second article on sewer-gas poisoning. The arguments submitted by Dr. Peter are certainly good, though we believe that really he draws his indictment a little too severely. The perusal of the article on "sewer gas" in Harrington's "Practical Hygiene," or for that matter in any modern work on hygiene, will show that it is no longer regarded as a very potent means for the transmission of disease.

Regarding the question of the quantity of bacteria contained in sewer gas we may quote from the above mentioned work the statement of Miquel, that sewer gas "contains fewer organisms than the air of the streets above or of any kind of dwelling, and such as are present come entirely or chiefly from the outer air, and not from the sewage." After an extensive series of investigations he found, as regards the number of bacteria contained in sewer-air, that it compared favorably with the air of schools and small dwellings and that it is often superior in this respect to that of poorly ventilated rooms. Other investigators noted by Harrington arrived at practically the same result.

The theory that sewer gas may serve as a medium for the transmission of ptomaines is an ingenious one, but we hardly think it is tenable. Ptomaines, as you know, are crystallizable alkaloid-like bodies and so

far as I have been able to ascertain are never volatile, though possibly I am mistaken in this. The detrimental effects of sewer gas are usually attributed to the sulphides which it contains.

There is no question that in many cases sewer gas is inimical to health. None of us wants to live in an atmosphere saturated with it. But the fact that workers in sewers (as in Paris, for instance) enjoy fully as good health as other laborers is militant against the notion that this gas is *especially* dangerous to health.—Ed.

HAS MADE WONDERFUL STRIDES

I send in renewal to your valuable journal—ever necessary because of its help and merit to the busy doctor. After having been in the profession for forty-one years I think that I am or should be qualified to look backward and note the wonderful strides your journal has made.

May God's blessings ever rest upon your exertions for the good of your race.

W. D. Wall.

Slaughter, La.

PNEUMONIA, WHOOPING-COUGH AND MARASMUS

The January number of Clinical Medicine came this morning and I have read part of it on my rounds today and have taken to heart what you say on page two about us all being enthusiasts. I am, therefore, reporting a few cases that to me are marvelous, not only in themselves but as to the way they responded to treatment. The pneumonia case has been the means of my getting quite a bit of work, and has made me believe more firmly in the new way.

Case 1. Male, age 33, bartender, married. Saw him at 10 p. m. His wife gave the following history: Went to work that morning feeling weak and creepy; had chill about one hour previous to my visit—came on suddenly followed by collapse. When I saw him he had a temperature of 105° F., pulse of 110 (full and bounding) and respiration of 34; face flushed, both cheeks red; and he was prostrated, with dyspnea, sharp shooting pains in right axilla, with a general soreness and severe headache. Some cough with thick expectoration; tympanites; had not urinated since noon.

I made a careful physical examination and concluded that I had a case of pneumonia and it would be a good one to try my alkaloidal treatment, so I started in as follows:

The first thing was to give him aconitine and digitalin, one of each every fifteen minutes until the pulse and temperature came down. Gave a course of hydrargyrum and podophyllin, aa gr. 1-6, one of each every half hour followed by saline laxative.

When I saw him early the following morning he had all the signs of a typical case of lobar pneumonia. The man's history was against him, for he was not only a bartender but also a heavy drinker and I was afraid that his heart would give out; but I watched him carefully and pushed my remedies accordingly.

In addition to the above treatment I also gave him emetine to increase the expectoration and calx iodata, gr. 2 every four hours and intestinal antiseptic every three hours.

In twenty-four hours his temperature was down to 99° F. and pulse 80; and *in just seven days he was up and about the room.* I put him on triple arsenates and nuclein for the tonic effect.

Now for case No. 2, which was one of whooping-cough.

In a family of five children the little girl, age three, was taken very ill one night after playing with some neighbor's children. She had high fever, flushed face, throat stopped up, and could not swallow; breathed with difficulty, skin dry and shiny and coughed with a whoop.

I gave calx iodata, gr. 1-3 every fifteen minutes for four doses, and aconitine for the fever. After a few doses of the calcidin I noticed some ease in the breathing and so I continued the calcidin every half hour until relieved. Cleaned out the

bowels and kept them sweet and clean. The following morning the child was all right except that she had a little cough which cleared up under calcidin, atropine and the "whooping-cough" granule. I took the precaution to keep the rest of the children under the same treatment for several days.

Case No. 3. Marasmus in bottle-fed baby. Baby's age five months. Began to get restless and would not take the bottle and in a few days developed a diarrhea (ten to fifteen stools per day), wasted and feverish. Discontinued the milk and fed her on whey every three hours, after cleaning out the bowels. Gave nuclein and triple arsenates and calcidin. Marked improvement in five days. Had a hard time getting the parents to make the whey but as soon as they did learn the diarrhea properly cleared up and the baby quieted down.

EUGENE SWAYNE.

Philadelphia, Pa.

THE JUGULATION OF PNEUMONIA

For two years I have been interested in the alkaloidal treatment of pneumonia and believe that I have aborted a number of cases. Generally, however, in such a rough country practice as I have, the physician is not called until the patient has been ill several days and the disease has advanced to a stage where jugulation is impossible. Again, given a case in first twenty-four hours—yielding very promptly to alkaloidal methods—there is a decided doubt in the minds of the laity ("gentlemen of the jury") if the patient ever had or was even "threatened with" pneumonia at all. The physician may even find himself doubting his own diagnosis a little and is on the whole much happier if he has kept his mouth discreetly closed about it.

At last, however, I have had so fine a case of jugulation that even the "gentlemen of the jury" will be satisfied to render a verdict of "not guilty" of too hasty a diagnosis. January 7, 1907, at 4 a. m., I was called to see E. B., white, age 15. While accompanying the father to their home he told me that E. B. was of robust constitution and had never been ill except for an attack of pneumonia two years ago, which had kept him in bed for several weeks. The father was certain that the son was again attacked by the same disease. For some weeks the lad had had a severe cold but continued at work on the farm.

About midnight the father noticed that he was breathing very rapidly and that his skin was hot and dry. Soon after, when severe pain in the side was complained of he started for me. On arrival I found the temperature 103° F., pulse 160, respiration 52 (shallow and irregular), skin hot and dry; cough, great pain in right side complained of; flushed cheeks and restlessness. On examination I found fine rales and slight dulness over the lower lobe of the right lung.

Treatment.—I applied antiphlogistine, hot, and the pneumonia jacket at once. Gave calomel and podophyllin, gr. 1-6 of each every half hour until six doses, followed in two hours by saline laxative. At the same time I began with the trinity, one granule every hour—also gave a few doses of hyoscyamine every half hour for relief of the pain. Diet confined to milk, broth and toast. January 8, at 11 a. m. the patient was free from pain and less restless; pulse reduced to 110 but temperature 104.2° F. and respiration still rapid; skin hot but some perspiration; cough incessant with scanty, tenaceous expectoration. The purgative had acted very freely a number of times.

I continued treatment as before with the addition of emetine one granule every two hours. Examination on this visit showed dulness quite marked. January 9, 9 a. m., temperature only 99.8° F. pulse 80; respiration 28; no pain or restlessness; skin cool and moist; cough frequent but loose, with abundant expectoration. Dulness almost gone, moist rales. I ordered trinity, emetine and hyoscyamine, one granule every two hours.

January 10, 12 m. temperature 98.8° F., pulse 80, respiration 22; cough less,

some expectoration, appetite ravenous; no dulness, a few moist rales still. Ordered trinity four daily with emetine for two days longer, and triple arsenate with nuclein after meals for two weeks, gradually increasing diet. Don't think I shall require to see this case again.

Here I followed the alkaloidal plan of treatment pretty closely, barring the use of sulphocarbolates, which I did not have on hand, and the case was so perfect a picture of jugulation that I thought possibly you would like it.

RUSSELL B. MAIN.

Markham, Va.

—:o:—

We do like it—not because it is particularly different from hundreds of other cases, whose reports we have had, but because it expresses the conviction of a careful, conservative man—one who will not speak till he *knows*.—ED.

SCARLET FEVER: KANSAS TO CHICAGO

I see that Chicago is full of scarlet fever. Let me tell you something. Four years ago I was called to see a child with scarlet fever; temperature 106.5° F., pulse 200. Very sick. I prescribed calcium sulphide every half hour and in twenty-four hours the patient was practically *cured*.

V. E. LAWRENCE.

Ottawa, Kans.

—:o:—

This time Kansas has a message for Chicago—one that it would pay it to listen to and put into practice. There is no doubt that in calcium sulphide we have a remedy for scarlet fever and measles that is as near a specific as anything yet suggested. Did you read that article by Dr. Pixley some months ago; or that one by Dr. Candler? If not, better do it.

Now—to epitomize the treatment of scarlet fever: Clean 'em out well with small repeated doses of calomel; follow with saline laxative; keep clean with the sulphocarbolates; control hyperpyrexia with aconitine "to effect;" nuclein as cellular stimulant; keep throat and nasal passages well sprayed out with some simple antiseptic, such as peroxide of hydrogen and camphor-menthol solution. Meet special indications with special remedies. Above all, *don't forget the calcium sulphide*, which should be pushed—and then some!—to complete saturation. Try it.—ED.

INTERESTED—AND TALKS IT

Through receiving sample copies of CLINICAL MEDICINE I became interested in the alkaloidal treatment of disease. Last year I subscribed for your journal with the result that I am thoroughly convinced that the methods you advocate are the coming practice.

I have been in practice for more than forty years and of course find it more difficult than a younger man to adapt myself to this treatment; but I have been using a number of the alkaloids with good results. Whenever I meet a young practician I call his attention to the journal and urge him to investigate and adopt the alkaloidal treatment.

W. H. MCCONNELL.

Brimfield, O.

ACTION OF DRUGS UPON THE BLOOD AND FLUIDS

Laboratory investigation of the blood and fluids of the living body, under the influence of plant-drug therapy in the treatment of acute disease ought to be a fruitful source of therapeutic attainment.

Aconitine does some intrinsic work in cell physiology in reducing fever, quieting the circulation, promoting rest and excretion and in establishing mind equilibrium.

Strychnine and digitalin have besides, a general tonic effect, a selective action on the function of the ductless glands. Combined with aconitine in therapeutic doses, they are an entity, whose beneficent action is hard to explain.

Clinicians have fathomed the use of such a combination and are firmly convinced of its efficacy, without the support of laboratory experiment. It is in-

dicated in all circulatory disturbances, whether fever exists or not. Proper conditions for absorption into the cellular system must always be provided to secure therapeutic results. Nutrition takes place outside the blood vessels—in the intercapillary spaces. The abnormal functioning of a single gland tends to upset the whole benevolent working of the plan of nutrition.

The introduction into the stomach of food at the wrong time and repeatedly tends to derange its associates in the processes of digestion and assimilation.

The work of a physician is to correct the result of physiological lapses. There is a premium put on rapid recovery, regardless of the after effects. Thyroid extracts, adrenal extracts, and other cadaveric alkaloids are resorted to in the race to make reputations. Thyroid extracts are efficient in selected cases—in patients with whom the function of the thyroid is dormant or destroyed; its administration has a similar use as lime has in rickets—to supply a want. Adrenal extract should be confined to external application and then not in large or continuous proportions. For its internal indications glonoin and atropine in combination fully fill the bill. Even ergot is better in some kinds of hemorrhage and shock than either. Ergot is better in sudden, internal bleeding of the sthenic state, but sometimes it is slow in acting. For some reason bleeding always stops before the capillaries begin to contract. Hence, divert the blood into the cutaneous capillaries to check oozing of blood.

Clinically podophyllin has a wide therapeutic range. Under its administration indol has the podophyllin increment; its use stimulates to healthy action the various glands of the small intestines, with little activity in the colon and rectum; when its action is beneficial it becomes a healthy aphrodisiac; its use in selected patients dissipates biliary and duodenal torpor and stasis; it promotes appetite. It dispels the "blues," promotes skin elimination and kidney action; it produces in some a disagreeable dry condition of the throat and fauces; it gripes a constipated individual, hence empty the colon and rectum before administering it to anyone. I prescribed it once for a year to a jaundiced neurasthenic—1-4 to 1-2 grain daily with a good effect. No other drug was given. Some days the dose was divided and more times given in a single dose at bedtime.

Echinacea is a clinically useful product, but unworked in either the chemical or physiological laboratory.

How does atropine dilate the pupils, dry the throat, milk secretion, skin perspiration, how does it flush the skin, stimulate and depress the higher psychic phenomena? Its opsonin or opsonic index is worthy of being established.

Now that the coal-tar series has been launched into the lap of the unskilled, the profession cannot do a greater kindness to the fellow-being than to study and intelligently apply the good old galenic preparations, concentrated and purified. It will be found in the process of study that their opsonic indices have the proper import for successful treatment of the invasions of the living human body by the microscopic disease floræ—bacteria. It is easier and more economical to extract the alkaloids from fully grown visible plants than to artifically produce the microscopic plant, for the extraction of its active principles; this latter, to learn of the life history and products of microscopic disease-producing plants (bacteria) is meritorious; but the application of the alkaloids of the higher plants have prescience, prestige, praise and long service to back them in the treatment of human ills.

James Burke.

Manitowoc, Wis.

—:o:—

This thoughtful article raises some important questions. The study of our remedies is but just commenced and heretofore has been limited largely to their action upon circulation, respiration and excretory output. As to those remoter but none the less important influences upon

metabolism we know next to nothing. Here is an immense field for clinical and experimental study. We have urged and again urge the "family" to do their share; to take up, each one some remedy, work with it, and report results. The hints of unstudied actions, made by Dr. Burke, are most suggestive. Who will follow them up?—Ed.

DOSAGE OF THE ACTIVE PRINCIPLES

Do your people publish or can you refer me to where a list can be had of maximum and minimum *dosage* of the active principles? Your kindly reply will be greatly appreciated. This is all you lack of having a sure foundation for success. Give us this.

J. Butler.

Blackwell, Mo.

—:o:—

In the W. A. Alkolaidal Therapeutics you will find most of the maximum doses of active principles given as well as they can be. We do not see what use it would be to give a hypothetical minimum dose, because you can gradually go down to the infinitesimal triturations, if you believe in that sort of thing, and still imagine you are giving a large dose.

The smallest known-to-be effective dose (as a positive remedy) is presented as a rule by the standard granule offered; that is to say, for adults; and "maximum dosage," as we have so often pointed out, varies with the individual and the conditions present at the time of medication. What would be the maximum dosage of digitalin and strychnine in "A" would be too much or too little for "B". The amount required also often varies in the individual, for under certain circumstances "A" may be able to take one grain of an alkaloid without developing pronounced symptoms of drug action while six months later he might be unable to take more than half the quantity. You will realize, after reading the book mentioned above, and also our new work on Practice—"The New Treatment of the Sick"—that the modern therapeutist recognizes no fixed minimum and maximum dosage—just "dose enough!"

Of certain toxic drugs we know of course that a certain quantity is likely to prove toxic in the majority of cases, yet often here there is a wide range of tolerance. Because five grains of acetanilid have killed more than once, we could not positively say that four grains would be the maximum safe dose. And because 1-134 of a grain of aconitine has caused trouble, we certainly would not like to limit ourselves to that amount in the treatment of acute infectious diseases.

Some time we may attempt to make an approximate dose table. In the meantime, by studying Clinical Medicine and the special works on the active principles we believe you will get all the information that you can possibly desire. The ideas we have advanced here cannot be new to you. Think them over in the light of your own experience and see if you do not agree with us when we say that maximum and minimum dosage is a farce—that the only rational rule for dosage is "dose enough"?—Ed.

A CASE OF STRANGULATED HERNIA

The patient, a feeble-minded youth, about twenty-four years of age, had misapplied his truss and allowed the hernia to slip down into the scrotum until it was of the size of a large apple and could not be reduced by the patient himself or his attendant. Two hours had elapsed and the patient had vomited, but the emesis was not stercoraceous nor projectile as yet. I dissolved two granules of hyoscyamine, gr. 1-250, in 20 minims of hot water and injected it by the hypodermic syringe. Three such doses were given at intervals of ten or twelve minutes and with the second, gr. 1-30 of strychnine sulphate. The foot of the bed was raised about eight inches. When thirty minutes had elapsed taxis was resorted to. This, which at the beginning had been impracticable, was now speedily successful and the hernia was returned within five minutes.

There was no further vomiting nor any unfavorable symptoms. Now, ten days afterwards, he is as well as ever.

Inasmuch as there is no new principle involved in the treatment adopted, why record this at all? The answer is, for the benefit of the many thousand new readers and subscribers of The American Journal of Clinical Medicine, to some of whom doubtless the plan and success of the treatment will prove new.

Edward Gray.

Eldridge, Cal.

—:o:—

Exactly! To some—many perhaps—of our readers this is an old story. Case after case of relief from strangulated hernia has been reported in our columns, following the use of hyoscyamine and strychnine. But important life-saving truths like these can not be repeated too often. Give us more of these reports—everybody! Of course the full physiologic effect of the hyoscyamine must be sought; and if there is shock the addition of glonoin is in order.—Ed.

THE CLINIC AND THE COUNCIL HE MUST HAVE

I have cut down my subscription list pretty low this year, because increasing business cares are curtailing my time for reading very markedly, but I feel that if I am going to practise medicine at all, I've got to have the Clinic and the *Medical Council* right where I can refer to them at any moment that I can spare time for reading even a few lines. They dish up all that's latest and best in medicine, so far as the work of the country doctor is concerned; anyway, in so meaty and succinct a manner that it would be positively unfair and dishonest to one's patients not to take them and *read* them.

Chas. M. Grover.

San Rafael, N. M.

NEAR ENOUGH THE TRUTH

"The degree of M. D. is given on the pupil's proficiency in memorizing things told him by lecturers and printed in books. These lecturers get their knowledge from books and the men who wrote the books got their information from lecturers and books. Very rarely is any new or commonsense idea advocated in colleges, because to do so is to lose caste. New ideas are forced in by barbarians, who have no reputations to lose, and then are adopted by the school-men when they have to. Any pupil who introduces his own ideas in opposition to the text books is refused his diploma."

Thus saith "Fra Elbertus" in the *Philistine;* and even though it does occur in the midst of a very foolish and misinformed attack on vaccination, it has a good bit of wholesome and righteous wit about it—like most things which Hubbard says.

THE CATGUT TREATMENT OF HYDROCELE

In a recent issue we published a query asking what we knew of "The Catgut Treatment of Hydrocele." The correspondent had suggested operation along regular surgical lines to a patient, who refused to accept treatment because another physician had advised the "catgut treatment." Though we try to keep up with modern methods and have access to all new books and current literature we failed to identify this new way of treating hydrocele with catgut. As we remarked, "catgut is not a good drainage material and one could hardly speak of the mere use of catgut as a ligature or suture as a method of cure." Somewhere we had heard that some men introduced a few strands of catgut through the canula, leaving them there; but this seemed to us worse than useless.

After the journal appeared several letters were received calling our attention to the fact that articles dealing with the catgut method had appeared here and there. One gentleman wrote us that the idea was first conceived by Dr. Geo. W. Lawrence of Lakewood, N. J., who had treated many cases with ideal results. Another correspondent wrote that he had seen an article

in the *Therapeutic Gazette* two years ago on the subject and the plan "looked good" to him.

Feeling that there might be something really good awaiting the busy practician we wrote Dr. Lawrence and asked him to outline his method. The following clear and concise statement of facts will enable any reader of CLINICAL MEDICINE to try this method, which seems to give good results in Dr. Lawrence's hands. The necessity for strict asepsis is evident. We hope that the plan will be thoroughly tried and results reported.

As Dr. Lawrence does not claim to have originated the idea of using catgut in this way perhaps the discoverer of the method will reveal himself.

Dear Dr. Abbott:

"I do not claim to have been the first user or inventor of the catgut method treatment for the cure of hydrocele, nor do I know the doctor who first called it to my attention. In fact, the only reference I ever saw in regard to it was about three lines in the *Medical Record* some twelve years ago.

"From that hint I elaborated and perfected the technic and used it eight years with 100 per cent cures. It seemed so simple and useful that I read a paper before our city medical society in New Britain, Conn., and published the same in the *Yale Medical Journal*, our state society organ.

"That is some two or three years ago and it received many comments mostly favorable at that time. Dr. Albright of Philadelphia gave quite a gist of methods in his little paper, and as I am always busy I felt it was well-known without further exploitation.

"It is with regret that I am unable to write this up as it should be as so much depends on doing the operation just right to secure right results. But here is an outline of the method:

"First. Make sure the trouble is hydrocele.

"Second. Under proper aseptic conditions insert a small trocar which will take No. 3 catgut easily.

"Third. With canula still *in situ* insert ten to twelve inches of No. 2 or 3 sterile catgut.

"Fourth. After the catgut is entirely through canula and coiled within the sac, remove the canula and seal the opening with collodion or zinc oxide plaster.

"That's all.

"The point of being sure of diagnosis is no more important than in any method; but this is always of utmost importance, for no one likes to stick a trocar into a hernia or kindred condition.

"The point of asepsis means an aseptic condition of the scrotum, trocar, catgut, hands, and all things used and handled from beginning to end.

"The catgut used must be sterile and straight to insure this point. I take No. 2 and 3 gut in thirty lengths, as sterilized by J. & J., dry package, and string them through a glass tube twelve inches long, i. e. tying loosely so as to allow for contraction when boiled. I boil this in sterile water carefully for fifteen to twenty minutes, wrap it in sterile gauze and dry out carefully in oven.

"This gives two pieces for each strand, one length inside the glass tube and one outside of the tube. This gut is stiff, firm and straight and will go through the canula easily; as it passes into the sac a little manipulation is needed to coil it about and slip it entirely within.

"The reaction is slight, pain very little or none, a marked contrast to the injection method. I no longer keep the patient in bed and seldom put on a suspensory. It takes from three to nine weeks for the scrotum to assume its normal size and the hydrocele to be cured. During this period it is sometimes well to inspect the patient and reassure him.

"It is impossible for me to quote cases or discuss reasons why the walls close together, but I suppose the presence of the aseptic gut causes cell proliferation and agglutination of the sac walls. I do know that I have used it for ten years in all types of hydrocele without a failure or sepsis. I have also used it in a bad case of house-

maid's knee and know two colleagues who used it in bursitis at the elbow with perfect success.

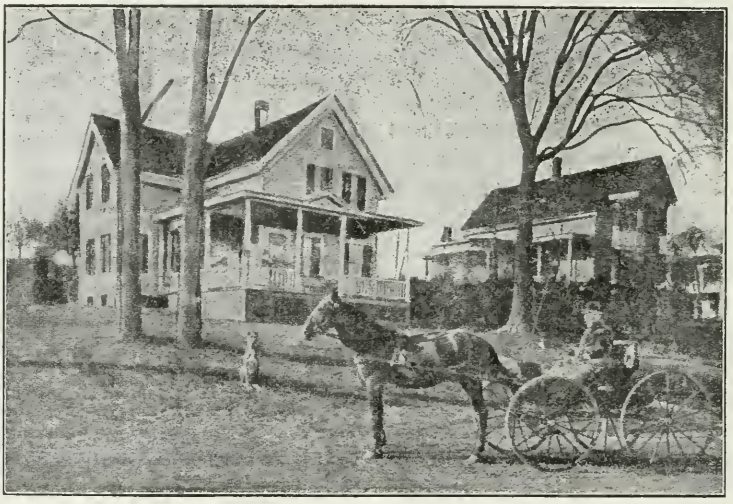
"I trust this hasty note may be of service to you and your subscribers."

GEO. W. LAWRENCE.

Lakewood, N. J.

"THE DOCTOR, JOHN AND MAJOR"

The picture on this page, carrying the above legend, was sent us by Dr. R. M. Griswold, of Kensington, Conn., with "Good for the new CLINIC" written beneath it. Thank you, Doctor. Why can't others do likewise? We would like to print a lot of these pictures—of the doctor's house, his horse, his office, his family, also himself—anything to show us "other fellows" how "you fellows" live. Isn't this a good way to get better acquainted? Pictures illustrating the doctor's life in out of the way places and under unusual conditions are sure to be especially enjoyed. Let them come!



THE DOCTOR, JOHN AND MAJOR

FINDING NEW BEAUTIES EVERY DAY

I am greatly enjoying the December number of the CLINIC and am discovering new beauties every day. I see that Dr. Myers is ably answered by Drs. W. F. Radue and J. K. Newman, so I will only say that I have been for six years aborting typhoid fever with the alkaloidal plan, and as I have been treating typhoid fever for forty years and have gone through several terrible epidemics of it, I think I know what I am talking about.

On page 1576 Dr. C. L. L. has a splendid article on abortion and its evils—and I suppose every physician who has been some years in practice has had the same experience. Abortion and drink are the two curses of the American people.

In the editorial comment on page 1582 on Dr. R. H. M.'s treatment of whooping-cough you speak of calcium sulphide. This calls to mind the first case of scarlet fever for which I prescribed this remedy. A lady from a mine north of here had been to the county seat where scarlet fever was prevalent and on her return she visited in a family where there were several small children, and in about the usual time the oldest child, a little girl about five years old, was taken down with all the symptoms of scarlet fever, a typical case. I cleaned out the bowels and kept them clean and rubbed the child all over with vaseline and saturated her and the younger children with calcium sulphide good and hard, so

that the odor of rotten eggs was in everything, and when I visited the child in three days I discharged the case and none of the other children showed any signs of the disease. Now note sequel. The father of those children does not believe to this day that that child had scarlet fever.

I take off my hat to Dr. E. F. Steger of Nashville, Tenn., and would like to take him by the hand. I admire men that die fighting and think that we should be like Sir Walter Scott says in "The Lady of the Lake": "Old age ne'er cools the Douglas blood." The brightest brain in the university in which I graduated in 1866 was ninety years old when I graduated, and lived several years after that.

I will quit this rambling letter when I tell you to go on with the good work. You are on the right track and THE AMERICAN JOURNAL OF CLINICAL MEDICINE is a power in the land, and will be a still greater power. JOHN MASON.

Lincoln, Cal.

—:o:—

Thanks, Brother, for these words of cheer. We are trying to be worthy of all the good things our friends say about us, and to make CLINICAL MEDICINE at least *approach* the ideals which they are laying down for us. Whether we are succeeding or not—well, we are content to let others tell the story.

Scarlet fever is epidemic in Chicago and the North Shore suburbs right now. Why *can't* we pound home, into the consciousness of our professional neighbors, the value of calcium sulphide in just such conditions? Help us! Try the alkaloidal and allied remedies and report your results.

Thank God for the grand old men who have honored our profession. Let us give them well-deserved honor while they are still with us. We agree fully with Dr. Mason in admiration for the fighters of the "Old Guard."—ED.

A CASE OF HIP DISEASE

Some time since I read in a Western medical journal a paper by a physician, in Nebraska I think, relating his experience with the use of a battery in driving a remedy into affected parts. The writer had been very successful in this method, and was elated with his success, as well he might be.

But this method is not a new idea. I have used it for over fifteen years. Dr. Beckwith's thermo-generator is nothing but a dry chloride of silver cell, used without the intervention of an induction coil, but I have found the use of the coil preferable, for the reason that most patients will not believe that any effect is being produced, unless there is some noise connected with the process, or some sensible effect produced on the nerves. But to my story.

Last July, on a hot afternoon when the thermometer stood at 93° F., a lady called at my office bringing a beautiful little boy of five years old. He seemed limp and lifeless, and walked with some difficulty. The little fellow had been under treatment at one of the hospitals, and on removing his clothes, I found on him a frame of iron and leather which held him like a vice. Under the two pads that pressed on his buttocks were two ugly sores, and another half way up his back, caused by the pressure of the frame. He was much emaciated. The mother told me that the hospital surgeon had fitted the frame the previous November, and given orders that it was not to be removed night or day. It was a pitiable sight. The mother told the doctor the previous day that the child was fast wasting away, and growing worse every day, and he said that the little fellow must come into the hospital and be strapped to a frame for six months.

She took the boy home, and that evening a neighbor called, and told her of a case of her sister's that I cured ten years ago, and she took the child to me the next day, without much hope, however, of any result. The hips were hollow, and there seemed to be wasting of bone tissue, and he woke up several times in the night screaming in terror, and moped around the house all day.

The thought came to me like an intuition, that there was a deficiency of lime in the

bone, and I could not see how strapping on a frame for six months with nothing to feed the bone, could work a cure. I told the mother to take him home and remove the frame and I would come over to her home the next morning and begin work on him. I gave her a little "ensoma" cream to dress the sores with, which had the effect of healing them over that night. In the morning I took my pocket "Lord Baltimore" battery and went over, and on the way bought some Squibb's calcium phosphate. I put a mattress on the dining-room table, and wrapping the foot plate in a wet cloth, laid him face downward on it, connecting the plate with the negative pole of the battery. Then I mixed some calcium phosphate with water to the consistency of cream, and spread over his spine and hips, and taking the positive handle of the battery in one hand, I began to manipulate spine and hips, keeping my hand wet by occasionally dipping it in water. Well, calcium phosphate is insoluble—I know my chemistry well enough to know that the books say so, but where did it go to? I treated him with it from neck to heel, and then turned him over and worked on the ribs, arms and legs, until every particle of the phosphate has disappeared, and no trace of it could be discovered on wiping him over with a black cloth. Then I rubbed him all over with olive oil until the oil was all absorbed, and the little chap sung all through the operation. Then his mother dressed him and he went out to play.

I gave three of these treatments a week for a fortnight, about an hour each, and at the end of that time I took him off from the table and told him to walk around on the floor on his hands and toes, and he went around the room like a cat.

His appetite returned, his sleep was sound and quiet, and I reduced the treatments to two a week, half an hour each, and now shall give but one.

When school opened in September he entered the kindergarten, and has missed but one day, and that was on accout of oversleeping. The hollows in the hips are filled out, and his flesh is firm and solid. He climbs over chairs and tables and makes things generally lively in the house. His spine, which showed some signs of outward curvature, has become straight, and he is the picture of health.

Internally I give him calcium hypophos. gr. 1-6, and this is the treatment in full.

Now you may say that this savors of quackery, but there is the little fellow rescued from a course of torture, and in robust health, and what are you going to do with the fact?

I don't know that this treatment has not been used before. That I have never seen any report of it does not prove anything. But because calcium phosphate is insoluble in any known menstruum, it does not follow that there is no force that will break it into infinitesinal atoms and carry it where it is wanted. I often use the alkaloids in this way, by dissolving them in water and driving them into the very spot where they are needed. I find sometimes, as every practician doubtless has, that a remedy becomes totally changed as to its nature, even if not nullified in its action, by passing through "that diabolical apparatus called the stomach" and when the beaten road is impassible I believe in looking for a short cut across lots.

I have had several interesting experiences of late with this same calcium phosphate, but I will not burden you any longer with the details. You can have them for the asking. But old Paracelsus in speaking of limestone says, "Many a man kicks away with his foot a stone that would be more valuable to him than his best cow, if he only knew what great mysteries were put into it by God, by means of the spirit of Nature."

J. R. Phelps.

Dorchester, Mass.

—:o:—

Dr. Phelps' scheme of cataphoresis certainly looks unreasonable—it *is* unreasonable! How can anything be accomplished in this way with a faradic current and an insoluble medicament? But—and here's the strange part of it—his patient got better,

and, we learn from later letters, has continued to improve right along since this report. We shall put the whole problem up to our electrotherapeutic friend and expert, Dr. Paxton, the next time he drops in to talk things over.—Ed.

A CASE OF TUBERCULOSIS

It has been said that "Fraternity is Heaven and the lack of it is Hell" and I know of no more truthful saying; neither do I know of any more delightful medium through which we may disseminate this good fellowship than our Clinical Medicine with its refreshing little footnotes [Alas!—Ed.] and its solid "cover" wisdom. It is as full of good solid meat as the best nut grown and is worthy the careful perusal of us all. There is not one who cannot learn something of value from each number.

By the way, I have another case to report to the family which may be interesting. This time it is not one for diagnosis, for that was a certainty from the start.

A patient, 24 years old, a woman, came to me for examination, suspecting tubercular trouble. I made the examination as requested and obtained a positive report on the sputum. There was a history of two small hemorrhages and in fact a clear typical picture of the suspected disease. I did not tell the patient, but did notify the mother and obtained the promise of the Board of Health not to unduly stir the family up, for obvious reasons. As I am a thorough believer in the static machine intelligently used, I started my patient in on a treatment which I have believed for some time is the most rational which we have at hand for home treatment, and one which has proven its value to me in several typical cases, of which this is one.

For my electrode I use a simple sash-curtain rod with the thin brass ball left on one end and a piece of bamboo on the other for an insulated handle. I believe that this is the best ozone electrode that can be found, as the current follows the inside of the tube and does not waste as it does from a solid rod. This electrode I fasten into my tube holder and seating my patient on the platform I adjust this tube electrode so that it throws a spray of ozonized air into the face of my patient. I have it about 18 to 24 inches from her according as my machine is working strong or weak, which of course depends upon the atmospheric conditions outside.

This spray I gave her for about thirty minutes every morning and about every third morning I gave her the x-ray directly through the lungs with the tube about 12 inches away for ten minutes. She walked to the office every pleasant day and if she felt strong enough, which she usually did, she walked home, which was about a half a mile away. When I started the case she was running a temperature of 100.4° F. morning and slightly higher in the evening. Was not expectorating much but had a distressing cough.

For medicine I kept the cough in control with heroin, 1-12 grain, and for a tonic triple arsenates and nuclein, 8 *per diem*. These were practically all the internal remedies that I administered. I forced the feeding to the limit. Milk and eggs taken in small quantites often and always held in the mouth until thoroughly mixed with saliva before allowing to come in contact with the gastric juice, a procedure which I always insist upon when I wish particularly to correct improper metabolism.

This is about the whole story. She came every morning, inhaled her pure ozone, went home and partook of her nourishment and went for a good open car ride every pleasant afternoon at between 12 and 2 o'clock. Read good wholesome literature, kept her mind free from worry, and was as happy as she could be under the circumstances.

The first week she gained two pounds in weight, the cough lessened in force, she retained her nourishment well and slept fairly well. From this good beginning she continually gained until at the end of two months I sent her into the country

to complete her treatment. She remained there for four weeks under ordinary living conditions except that she was not to exercise to fatigue and was not to remain out of doors after 5 o'clock p. m. At the end of this time she returned in apparent good health and assumed her position and was still working when I last heard from her. As she was not expectorating I could not test the sputum, but the encapsulation has apparently been complete. Space does not permit the report of other cases but the procedure was practically the same except such changes as would naturally suggest themselves in the individual treatment of every case.

Those of "the family" who have static machines should become thoroughly acquainted with them and their possibilities, for they are jewels when you come to know them. A good stock of alkaloids, a good "static," and a thorough knowledge of both, is all you need, Brother, to work wonders.

CHAS. E. BUCK.

Boston, Mass.

THE TREATMENT OF THE SKIN

The skin is nature's wall of protection against the invasion of all manner of bacteria and microscopic organisms and no doubt is always loaded with the various forms of germs continually, and the wonder is to me that it is ever normal; more especially among the class of people who make no attempt at cleanliness and entirely disregard sanitary laws of all kinds. I long ago became convinced that skin diseases should be as carefully treated and protected as a wound or traumatism in order to get results, hence I have for four years abandoned all manner of ointments, oily bases, etc., and prepare the part as effectually and thoroughly as if I were going to do a major operation and then carefully protect it from any exposure afterward, with suitable dressings.

The patient having been subjected to a complete general scrubbing I prepare a fresh saturated solution of permanganate of potash and go over the affected skin, allowing it to remain on the part for five minutes and this I follow with a saturated solution of oxalic acid for the same length of time, then 1 to 1000 solution of bichloride of mercury. Then wash with spirit of turpentine and finally with sulphuric ether. Then cover the parts with sterile carbolized gauze and a roller bandage and allow this dressing to remain for several days according to the amount of discharge, if any has been going on. When this is removed the same process may be necessary or only a bichloride solution may be sufficient. This line of local treatment in practically any kind of skin disease has given me excellent results and is generally more grateful to patients than ointments.

Of course almost all these affections have an internal condition that must be remedied if permanent results are to be expected. Consequently I attempt to remedy everything in sight and get proper elimination from all the emunctories, especially the intestinal tract; but I am here only calling the attention to the local treatment which has been of such excellent service for many years that I have wondered why it is not more used. H. J. NEELY.

Butler, Pa.

—:o:—

While this line of local treatment is undoubtedly beneficial in many cases, in many others its severity would contraindicate it. In the acute inflammatory affections, for instance, it could hardly fail to intensify the trouble. Ointments are by no means the only skin remedies; indeed, they are seldom suited to acutely inflamed, weeping surfaces. Dr. Neely's internal treatment is along the right lines; while in many chronic skin affections his external treatment will undoubtedly do splendid service.—ED.

CALOMEL AS A GONORRHEA REMEDY

In the summer of 1898 the Rock Island pushed its way south from Caldwell, Kansas, through what is now Oklahoma. The boss

of a grading gang used to bring a gallon jug whenever he came to town and get it filled with calomel and simple syrup, which he dispensed to his men as a gonorrhea injection. He claimed that it was a "sure shot." I have since used the same with good results.

STEPHEN E. SMITH.

Grantville, Kans.

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This nicely supplements Dr. Fowler's suggestion in the December number, page 1596. Why shouldn't the calomel be a good thing—but the syrup? In acute cases that strikes us as being a *little* too irritating. But who knows? Pretty much everything has been vaunted as a "sure shot" in this disease.—ED.

SECRET SPECIFICS—WHAT'S IN 'EM?

In a certain popular and able magazine, I see doctors sending medical names of proprietary medicines, asking the formulæ. The reply has been in most instances, "You can get up a better remedy yourself."

Now be it known I hate a secret remedy, and never use one, making the formulas myself from the symptoms, or from remedies used by practicians whom I know to be able, or taken from works written for the purpose by those whose skill is undoubted, and so far have got along in a manner that has been satisfactory. Yet I want more, and have begged, bought and stolen remedies whose composition I was ignorant of, but which I saw relieved the sick. For instance, I saw a doctor prepare medicines for a case of cancer of the breast. She was under treatment for some months, when the growth withered like an apple exposed to the frost, loosened under a poultice of cranberries and fell off. There was an apparent cure. Several years after she still continued well and gave birth to a son.

Of course I asked what he had used. He said, "Any alterative, providing it contains yellow dock and tag alder will kill them, but change the ingredients from time to time."

I saw the medicines prepared and recognized blue flag, mandrake and dandelion. Some I did not know. He simply kept the blood saturated with the decoctions of the plants.

Another doctor I saw treat the disease, used freely mandrake, blue flag, sarsaparilla, burdock and poke and used as much and as often as he dare, an application of arsenic, chloride of zinc, blood root and flour—when inflammation ran high. He poulticed with linseed meal and powdered elm. He made a good deal of money at it. By the way, he injected deep into the tissues—if the tumor was large—a saturated solution of zinc chloride, and if pain was severe, used morphine.

I saw small ones yield to a saturated tincture of toad flax, fifteen drops every four hours, and an ointment of same made by boiling in lard the plant when in bloom. They were on the face.

Here is a formula—cost fifty cents forty years ago. It was sold by a Philadelphia doctor of no mean skill, as a great secret: Yellow dock, bitter sweet, comfrey, dandelion, tag elder, of each lbs. 2; mandrake, blue flag, of each lb. 1. Macerate the coarsely ground drugs in alcohol, 95 per cent, and draw off through a percolator all that will run and set to one side. Continue percolation till tasteless and to this last add three pounds of white sugar. Mix and evaporate to 36 pints. Dose: Teaspoonful every four hours.

He also advised the addition of 2 ozs. chlorate of carbon to the mixture, a drug you had to buy from him. His application was: Stramonium ointment, oz. 1; muriate ammonia, iodide potash, of each dr. 2. Applied twice a day. If it failed he used: Chloride lime, oz. 1; powd. bloodroot, dr. 1; dried flour, enough to make a soft plaster. Keep on till it killed the growth.

I bought other secrets too for various troubles. Some did not cure, others did.

I knew a lady patient who had had for many years a nervous trouble, strongly resembling epilepsy. She does not become entirely unconscious but shakes by the hour. Her husband has taken her to

experts, done everything, went everywhere for relief, but with no result. He is not a believer in proprietary remedies. However, a lady friend brought a bottle of her favorite remedy to her. It stopped the attack. It did not cure it, but will stop it. Now, here is something you can't make "just as good yourself."

Another, and then I'm done. I once had a patient, a good, honest, hard-working man. He made his day from six a. m. to nine p. m. and of course he prospered, as he had no faults. By and by he got up to seventy or thereabouts. His memory became confused, strength began to fail, impotence set up and it looked as if he was going over the Divide. I tried to help him, so did others; even a Chicago doctor failed. The case finally drifted to Dr. Thompson, who advised rest, open air, recreation to a reasonable extent and prescribed: Zinc phosphide, gr. 1-10; strychnine, gr. 1-40; ignatia, gr. 1-40; ext. saw. palmetto, gr. 1-2. This was made into pills, two to be taken from three to four times a day; also powdered yohimbin bark, gr. 5, in a capsule every four hours, away from meals. In two weeks the man was at work, all his symptoms removed, and he is working yet. The trick here is—where does the doctor get the bark—he won't tell. Now here is something you can't do "just as well yourself."

The meat in all this is: I will join any number of doctors who will divide up expense and if any one sees a secret remedy is of use, buy it. Get a competent chemist at it and let us pay the bill and tell the CLINIC all about it. If anything is good all ought to know it. Knowledge should be spread as far as human skill will take it. If what I propose is right let us do it. If wrong, why drop it. But I do hate to have somebody do something I failed to do. Our medical magazines need large sums of money to carry on their work and should have it. Most of the money comes from advertisements, therefore I excuse an article which I read lately in which the editor made an effort to defend secret formulæ by saying a man should be paid for his brain work. So he should, but not at the rate of a dollar an ounce for a drug a reasonable profit on which would sell it for fifteen cents.

Suppose the editor and writers on the CLINIC, who give away freely information worth thousands to students of medicine, which costs them a life-time of hard work to gain, thought so. Where would we all be? The practice of medicine is not all of it "business;" some of it is, and I hope a good portion, an honest desire to benefit humanity. The most I know was told me by others. Out of it all I have made some gains myself. All is at the service of any one who wishes to know.

I have a friend in the drug line who belongs to a crowd who pay chemists to analyze proprietary remedies. I looked over a number of his formulæ. One fine nerve remedy was mostly cocaine, yet the persons who buy it say it helps them. Just now there is a large number of educated practicians hunting the cause and cure of cancer. None seems to think of saturating the blood with alteratives, a plan I have seen successfully followed by some old-fashioned quacks. I could give treatment of a number of cases I saw cured (apparently) but have already taken too much space.

J. A. ELLIOTT.

Northumberland, Pa.

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In Dr. Elliott's letter there is a mixture of truth and error. The formulas used by quacks are frequently the prescriptions of regular physicians and contain nothing that is not well known to any educated member of the profession. Many times they contain and depend for their effect on such drugs as opium, alcohol, coca, and cannabis, which we, aware of their perils, would not care to employ for the temporary relief afforded. Sometimes they contain remedies formerly employed by us but that have dropped out of sight, though really effective. We have paid a good deal of attention to these remedies, and do not know of one that contains a true secret, or discovery, not known to the profession at large. We

do not believe there is any such value in the whole mass as to justify the expense Dr. Elliott suggests.

In his remarks on cancer remedies he strikes at the root of the difficulty. We turn up our noses at the idea that any simple or compound decoction of weeds can cure cancer. But do we know it? All we can positively affirm is that there has been no scientific proof of such cures presented. Have these remedies received a really scientific and satisfactory trial? No! Why? The answer is, senseless, blind, undiscriminate polypharmacy, as seen in the prescriptions presented by our correspondent.

The records of investigations of these vegetable preparations made are worthless. Beyond the action of any one on the circulation, respiration and temperature, and on the evacuant organs, there is nothing known of them. The fact that cancers are cured while a patient takes a mixture of a dozen drugs means little. If out of a sufficient number a decided proportion recover, it means more. Then we have to ask, which of the ingredients exercises the curative effect, and how? To any one of them the objection may be made that probably one hundred physicians tried it for cancer and all failed. But that means exactly nothing at all, because they did not give it a sufficient trial. Simply giving any preparation of a plant, in any manner, for a longer or shorter time, is not a sufficient test of its properties.

Take each of these plants in turn, get the best preparation obtainable, the active principle when possible, and give in constantly increasing doses until the limit of toleration is reached, and there sustain it for at least three months. You may then be able to say if it has or has not a curative effect, and what this effect is.

The writer has never secured a distinctly beneficial effect from phytolacca in obesity except by giving phytolaccin to the limit and then only after it had been taken for three months; the effect then has never yet proved wanting. Remedies designed to alter the nutrition of tissues must be allowed full time to show cognizable action.

Some day the profession will tire of the indirect therapeutic methods, and of guesswork, empiricism, polypharmacy and carpentry, and will take up seriously the study of the action of definite remedial agencies upon living bodies and functionating organs. —Ed.

JUST BEGINNING TO "DO THINGS" AT SEVENTY

There is an old saying that "it is hard to teach an old dog new tricks," but I find that I can handle the active principles easier than I could the large saddle bags filled with the old-fashioned drugs. No such men as Osler can make me quit, if I *am* seventy years old. I am right in it yet, and in a few days will have to have more alkaloids. I am not losing patients—nor faith in the alkaloidal medicine. A. J. Rathbun.

Burghill, O.

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We are more than pleased to know that you are taking to the active principles so readily, but should have been surprised at a different report. Thousands of physicians are today using the granules in their daily work, and attaining therapeutic results hitherto deemed "impossible."

It is pleasant to note your cheerful courage. A man is, after all, only "as old as he feels," and the mere fact that seventy years have passed over your head does not make you threescore years and ten *old*. It is quite evident, Doctor, that you have many years of usefulness ahead of you, and we trust that when the Indian summer does come it may be peaceful and beautiful.—Ed.

DIPHTHERIA AND DIPHTHERITIC PNEUMONITIS

I read an article today in a certain periodical, giving some histories of some fatalities and causes of death among diphtheritic patients, mentioning bronchoneumonia in which extension of the Klebs-Loeffler bacilli to the lungs was the exciting cause.

Years ago I had cases die from the very same cause. After the disease had invaded the larynx, necessitating intubation, which I always did myself (except in one instance), and after the disease was apparently under control, giving us assurance that the person or child was surely growing better, suddenly evidences of pneumonia developed and notwithstanding the most heroic and energetic treatment the patients died.

At last I found the remedy which combated this condition and in two instances it succeeded in saving the life of both patients. Its most striking effects were observed in a very grave case of primary laryngeal diphtheria which I attended four years ago. The lad was about eight years of age. He had always been subject to croup from colds and calcidin usually relieved him, with suitable treatment for his cold and resulting fever.

This time I prescribed the usual treatment, but his "croup" gradually grew worse. I had thoroughly examined his throat but could see only the red injected fauces. The next day his croupy wheezing was more stridulous and pronounced. Examining his throat I detected just back of his right tonsil a small patch of membrane, not larger than a small pea. I tried to detach it for examination but secured only a small part of it but sufficient. This settled the diagnosis of laryngeal diphtheria.

He was given at once 3000 units of antitoxin; the next morning 3000 more. Respiration became so labored and impeded that intubation was deemed expedient. This was done by Dr. Dean of Council Bluffs which of course afforded great and immediate relief. He seemed to grow better the ensuing thirty-six hours, then symptoms of extension to the bronchi became manifest. Bonchopneumonia developed and his condition grew rapidly worse. I had given him another injection of antitoxin and besides he was on strychnine, digitalis and ammonium carbonate, with all the usually effective local treatment.

His case was pointing unmistakably toward a fatal issue and the climax was reached the succeeding night when he commenced to show grave symptoms of collapse, rapid pulse, weak and wiry, blanched, cyanosed features, cold sweat and failing strength, with that apathetic spirit I had before seen precede dissolution.

Taking the father of the boy to my office, I handed him some powders of cyanide of mercury, about 1-1000 grain to each powder and told him to give them one every fifteen minutes. After the second dose the patient seemed better and continued to improve. The next morning I added to the cyanide of mercury, arsenate of antimony, to favor absorption of exudate and resolution. Complete recovery followed. However, his heart's action for a time was irregular and had to be sustained. The tube he coughed out the fifth day after insertion.

The administration of mercury cyanide in diphtheria is not new, but its phenomenal action in the stage of pneumonic involvement when the case was apparently hopeless speaks for its efficiency. I am absolutely convinced it saved the boy's life. The arsenate of antimony in 1-100 grain doses every hour did the work expected of it. I hope the profession will try mercury cyanide in the desperate stage of diphtheria indicated. I know it will not disappoint them.

J. H. Lowrey.

Neola, Ia.

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Here is an observation of the utmost importance. We hope our readers will try the suggestions made by Dr. Lowrey and report their results through the columns of Clinical Medicine. Who has had practical experience already? Let's have it.—Ed.

FOR OLD AGE

I am always very much interested in reading the Clinic and cannot refrain from writing you in regard to the article in the December number relating to "Old-Age—Arteriosclerosis." This article impressed me so that I will tell you an ex-

perience of my own, which occurred in my own family.

My father about sixteen years ago showed marked signs of sclerosis of the arteries and at that time had a severe bronchial hemorrhage and became very much disturbed physically, and later on his mental faculties became disturbed also in this way —that he became forgetful. At that time I put him on a treatment of arsenous acid, 1-67 grain three times a day, also quinine arsenate three times a day, regulating his bowels and excretory organs.

I must say that I could not see any positive or decided effect from the treatment for some time. The hemorrhages ceased within a short time but later on the mental condition was disturbed. He is now 82 years old and has gradually improved during these years until within the past year he has not taken any of the remedies to speak of. Of course his mind is not so clear as it formerly was, but he does not have the extreme conditions of forgetfulness that he formerly had.

I believe that it was only through continued and persistent medication of this character that I preserved his life and for that reason I can corroborate your article in many respects and recommend arsenic treatment to these cases with a strong belief that they will receive permanent benefit. It may not be immediate but it certainly will come. I have treated a number of cases in this way and have had excellent results so that I have perfect confidence in this line of treatment that you have outlined. J. A.

——, Illinois.

"IVY" POISONING

Patient, G. W., age 50, is just recovering from what to me appeared like an ivy poisoning. Both hands were wholly covered, including the palms. The interesting part of this case is that the dermatitis followed closely (about four hours) after the patient had been "skinning" rabbits for his family. Two years ago he had a similar attack of "ivy" poisoning, also following the skinning of rabbits. He thought that the last batch of rabbits was not fresh, nevertheless they were prepared and eaten by the family and he partook of some himself with no ill results. He has skinned rabbits before and in the intervals of the two attacks of dermatitis, but says he will take no more chances.

J. KETTERLE.

Brooklyn, N. Y.

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We put this up to readers of the CLINIC. Was it the external or the internal application of the rabbit which caused the dermatitis?—ED.

ALL'S WELL

All's Well, watchword, simple, tender, sweet,
'Tis not in Pleasure's idle home this power is known,
But when the heart's bowed down in sorrow,
When tender ties all severed hopes have flown,
When from repression's depths we rise with face serene
And smiling, calmly say, "All's Well,"
'Tis then and then alone thou art supreme.

The heroisms mortals seldom see
Are kept recorded by the angels,
And the glory, which though now is only seen in part
Shall be revealed in full when He,
Who too hath loved and wept, shall sing
"Well done, good and faithful, for thee
'All's well.'"

JEANNE EARLE DOS PASSOZ.

DR. DANIEL'S NEW BOOK

"The Strange Case of Dr. Bruno," by F. E. Daniel, M. D. The Guarantee Pub. Co., New York. Price $1.50.

Those who have the pleasure of knowing Dr. Daniel will not be surprised at the brilliance of this new production. As one dips deeper into "Dr. Courtenay's" narrative the feeling grows that this man had real being and by the time Dr. Bruno appears we know that we have been taken behind the scenes of an individual life—that we are witnessing a dissection of the mind and soul of a wonderfully gifted but most intensely human fellow creature.

Dr. Bruno is a man we have all met—or would like to meet—and the peculiar

ideas he advances to his friend Dr. Courtenay might easily be heard after the cigars are lit in the den of any well-read modern physiologist. But his tangled and tragic life-story, which is so graphically told, could belong to but few men—and fewer men still could tell it.

Dr. Bruno, after suggesting to his friend Dr. Courtenay, who tells the story, the desirability of "devoting to science the condemned criminal, say the negro rapist who casts his shadow over our fair land more baleful than the lethean shade of the deadly upas—not to *dissection* as the people understand it, but to experimental study on the internal organs to solve the problems of immunity, fermentation and glandular action," experiments himself with a drug which causes a suspension of the vital processes—enables man to assume the condition of the hibernating animal.

Disgusted with a society which clumsily destroys the useless criminal while refusing the use of his live carcass to science Dr. Bruno determines to take "his own medicine" and does so, leaving a note behind, detailing in precise terms just what will occur and what must be done when he begins to return to life. He has "timed" the dose to act for six months and assures his friend Courtenay that at the end of that time he will awaken.

In case of accident he leaves a manuscript containing the story of his life—the weirdest, most tragic, most pitiful story man could tell. He had married, as he supposed, his own sister; loses his identity—and his wife—and devotes himself, upon regaining his reason, to a minute study of the phenomena of *sleep*. His present experiment is the final test of the correctness of the theories he has elaborated.

Dr. Bruno *does* awake after six months of death-like sleep—only to die in the arms of his daughter, who was born after her mother had fled in horror from home and husband upon being told the secret of her birth by her supposed father.

If ever material for a plot existed in abundance it exists here and the reader of the "Strange Case of Dr. Bruno" will own, when he puts down the book, that Dr. Daniel has wrought marvellously well with the matter at his disposal.

Beyond the interest of the story there remains the insistent thought, *are* Dr. Bruno's ideas so preposterous after all? We can suspend life for a certain time, why not for longer? And, if to find out our limitation in this direction it is necessary to have human subjects to experiment upon, why should those subjects not be selected from such specimens of humanity as have preyed in the most obnoxious manner upon their fellows? The law exacts life, why should that life not be taken in a way which will prove useful to humanity at large instead of bunglingly at the end of a rope? The condemned man would be carefully fed and tended; he would serve his purpose and finally would succumb to a hypodermatic injection of some instantly fatal poison or—perchance—he could be (later on) put to sleep for an indefinite term to awake at last a new man under new conditions.

The reading of Dr. Bruno will at least make a man think strange thoughts and realize that many things may be which are not.

GEORGE H. CANDLER.

Chicago, Ill.

THE BEST JOURNAL PUBLISHED

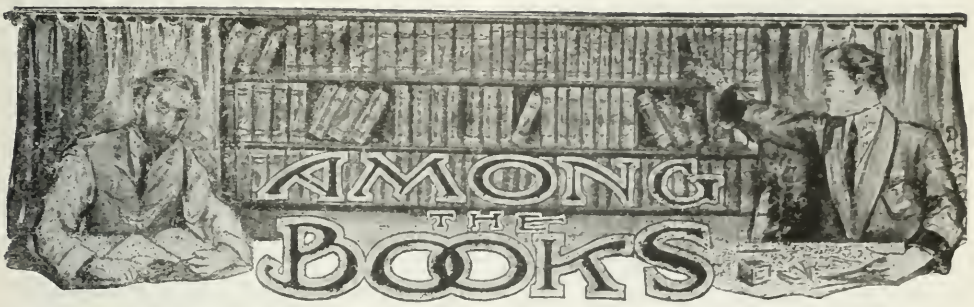
You are making the best journal published. I could not get along without it. It is as good as a post-graduate course. Long may it live to advance the *right-drug* therapy!

WM. H. FURBER.

Hartshorn, Tex.

INFORMATION WANTED

Dr. Waugh is preparing a paper upon Atropine as a Hemostatic and would be grateful for any data upon this topic. Kindly send unfavorable reports as well as successes; we want the exact truth and nothing else.



MOYNIHAN'S ABDOMINAL OPERATIONS

Abdominal Operations, by B. G. A. Moynihan, M. S. (London), F. R. C. S., Senior Assistant Surgeon at Leeds General Infirmary, England. Second revised edition, greatly enlarged. Octavo of 815 pages with 305 original illustrations. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, $7.00, net; half Morocco, $8.00 net.

It was only in the CLINIC of December, 1905, that we revised the first edition of this important work, and here is what we said then:

"The success of laparotomies for various affections in the abdominal cavity depends much upon a thorough preparation of the patient as well as the surgeon's detailed acquaintance with the parts he has to deal with. And these operations are becoming more frequent as asepsis and antisepsis are better understood, the people becoming less timid of operations and physicians become more confident of themselves by reason of a more prevalent thoroughness in anatomy and physiology. In these circumstances such a detailed monograph as the one before us becomes of immense usefulness. Such details cannot be expected in general surgical manuals. This book deserves the commanding authority it has, and is bound to have more and more by reason of its being founded not on mere authority but on long actual experience."

These words are of course applicable word for word to this second edition, revised and greatly enlarged as it is. But there is something in this edition which revealed to us more than the successful surgeon. It revealed to us the scholar, the philosopher, the unegoistic man. His most hopeful anticipations of the reception his book would get from the profession were exceeded, yet this only served to stimulate him to immediate improvements, and to incorporate in this second edition what he acknowledges to have learned from others, our own J. B. Murphy among them. Touched we were by the four Latin words with which the author prefaces his preface to this second edition. They betoken the honest scholar in his modesty, who thirsts for the more knowledge of the future because of the knowledge he acknowledges the masters of the past and of the present have given him. "*Omne meum, nihil meum.*" "Everything is mine, Nothing is mine."

WITTHAUS' "MANUAL OF CHEMISTRY"

The Medical Student's Manual of Chemistry, by R. A. Witthaus, A. M., M. D., of Cornell University. Sixth edition. William Wood & Co., New York, 1906, $4.00.

The first edition of this book was published in 1883. The book is both for the library and for the laboratory of the studious physician. In the twenty-three years this book has lived, the science of chemistry, as applied to medical knowledge and practice, has made an almost unsurveyable progress. And we take it as an advantage for the presentation of a science when it is done by an author who has lived through the progress of that science, especially when he is a teacher of it. He is more apt to

feel what and where his pupils and readers need further knowledge on the subject. It is from this view-point especially that we recommend this present edition of the work.

BAILEY'S "HISTOLOGY"

A Text-Book of Histology by J. R. Bailey, A. M., M. D., of the College of Physicians and Surgeons, Columbia University, N. Y. City. Second revised edition. Illustrated. New York, William Wood & Co., 1906, $3.00.

In the multiplicity of subjects which the medical student has to attend to at the present time, and in the absence of any method of mnemonic retentiveness, the short, pithy, concise, yet comprehensive text-book, not the mere book of "essentials," becomes an insurmountable necessity, especially in branches which but a decade or semi-decade ago were considered merely more or less ornamental, as e. g., histology. Having heard the didactic lecture, and seen the object of it, macro- and microscopically, they will fasten on the mind clear enough for future reference if we read up that subject in a good text-book the same day, or rather night. And we are not mistaken when we say, that the Text-Book on Histology before us is such an invaluable book.

STARLING'S "PHYSIOLOGY OF DIGESTION"

Recent Advances in the Physiology of Digestion by E. H. Starling, M. D., F. R. S. Chicago, W. T. Keener & Co. 1906, $2.00.

Pawlow of St. Petersburg, with his ingenious and painstaking, patient and successful experiments in the subtile processes of digestion, gave a new turn to the physico-chemical studies of the inportant work of the *primæ viæ*. The demonstrated nervo-vital action in the initial stages of ingestion and digestion which Pawlow gave the materialistic physiologists to think about, did not simplify matters. Not a word need be said to the studious physician of the intimate and important relations of food digestion to the administration of medicine, or special foods in acute and chronic diseases. The *materia alimentaria* is a sister angel to the *materia medica*. And if you want to know something of the work done for us physicians by searching laboratory workers, then get these Starling lectures, and enjoy besides a plain classic style of English.

SCHLESINGER'S "INDICATIONS FOR OPERATIONS"

Indications for Operations in Disease of Internal Organs, by Prof. H. Schlesinger, M. D., of the University of Vienna, Austria. New York, E. B. Treat & Co., 1906, $3.00.

The boldness, safety, and wonderful success of modern surgery has the double danger of resorting to it too much, and again too little, in the practice of internal medicine. To help us avoid these evils the book before us will be of eminent service to the plodding general practician.

JARDINE'S "MIDWIFERY FOR NURSES"

Practical Text-Book of Midwifery for Nurses, by Prof. Robert Jardine of Glasgow. Third edition. London, Henry Kimpton; Chicago, W. T. Keener & Co., 1906, $1.50.

They seem in England to expect the nurse to be a midwife, and *vice versa*, and for such this excellent book was written and illustrated.

GILLIAM'S NOVEL "A VICTORIOUS DEFEAT"

A Victorious Defeat; the Story of a Franchise. By Charles Frederic Gilliam. Illustrated by Ted Ireland. The Roxburgh Publishing Company, Boston. Price $1.50.

Another member of the "Clinic family" has developed rare story-telling qualities, as evidenced by this book. Dr. C. F. Gilliam, the author, is a frequent contributor to our pages and one of the most ardent advocates of the active principle movement, as witness his article in this number.

Naturally one would expect his book to be a good one. It is more—it is a remarkable book, one of the kind that you can not sit down to read and leave before it is finished. The story is a political one. An effort is being made in an Ohio city to pass a disreputable franchise bill through its council, in the interests of a street railway combination, by the connivance of corrupt politicians, big and little. Robert Barker, a young lawyer, becomes the champion of the people's rights, which brings him into a bitter fight with Judge Henley, the father of the young lady with whom he is in love. There are plots and counter-plots, wire-pulling, caucuses, lawsuits, riots. All the strings of political controversy are pulled in a masterly manner. Dr. Gilliam evidently knows "the game." One of the most interesting characters is Charlie Marston, the clever young doctor-reporter, who makes a brilliant newspaper "scoop" and uncovers the plans of the conspirators. Through it all is woven an interesting love-story.

The characters in the book are alive—and their identity thinly veiled. For instance, Senator Marcan, who was "supposed to have a mortgage on the President of the United States" will be easily enough recognized; while the local politicians are so well described that almost any resident of Ohio must be able to recognize them.

It's a "dandy" story—not merely on account of its compelling interest from beginning to end, but also because it is in line with the great ethical movement which is sweeping the country. We hope that many of our readers will buy it and read it —and get their neighbors to read it.

EINHORN'S "STOMACH DISEASES"

Diseases of the Stomach, A Text Book for Practitioners and Students, by Max Einhorn, M. D., of the N. Y. Post-Graduate School. Fourth edition, New York, William Wood & Co., 1906, $3.50.

In our review of the third edition of this work in the ALKALOIDAL CLINIC, 1903, p. 509, we said: "The book is on the road of becoming a classic," and it seems we have not been mistaken. In the ten years since the first edition of the book, much has accumulated that needed incorporation in this fourth edition and this has been done, but the excellent plan remains the same. A helpful book.

PRACTICAL MEDICINE SERIES, VOL. VII

Volume seven of the "Practical Medicine Series" consists of two parts, the first and greater being that of *Pediatrics*, by Dr. I. A. Abt, of Rush Medical College, Chicago. The Year Book Publishing Co., 1906. $1.25, or $10.00 for ten volumes a year. A good report of the doings of the year in this part of practice.

Orthopedic Surgery, by Drs. John Ridlon and G. L. Bailey, is discussed in the second part.

It will more than repay any physician who attends to children's diseases to read through these 55 pages of orthopedics.

PRACTICAL MEDICINE SERIES, VOL. VIII

Practical Medicine Series, Vol. VIII, 1906, Therapeutics, Preventive Medicine, Climatology, and Forensic Medicine. Year Book Publishing Co., Chicago, 1906. $1.25 or $10.00 for the ten volumes a year.

Materia Medica and Therapeutics, by Geo. F. Butler occupies the major part of the book, 207 pages. It is an excellent account of the therapeutic progress of the year. We are inclined to say to our readers: Those of you that are drug therapists of the true faith, as once delivered and tried and ready to be tried again, you cannot safely be without this work of Butler in your practice.

Preventive Medicine, by Dr. H. B. Favill ought to be read by every physician who wants to preserve a conscience free from offense, on the well known truth of "an ounce of prevention, etc."

Climatology, by Drs. N. Bridge and Edith Claypole, is a short account of the results obtained in the treatment of tuberculosis and other diseases in sanatoria,

in the open air, and in especially adapted climates and altitudes. Who can afford to practise without a knowledge of what was accomplished last year in this branch of therapeutics?

Forensic Medicine, by Dr. H. N. Moyer, contains some points which to know may become of vital importance to our success and reputation "before we know it," so better we know it at once.

On the whole this Vol. VIII is of the superlative kind of this fine series.

PRACTICAL MEDICINE SERIES, VOL. IX

Anatomy, Physiology, Pathology, Bacteriology and Dictionary. Publishers, The Year Book Publishing Co., Chicago, $1.25 or $10.00 for the ten volumes of the year.

The first and third subjects are treated by Prof. W. A. Evans of the College of Physicians and Surgeons, Chicago. The *Pathology* part is the most extensive of the volume. It is succinct, yet comprehensive enough for more than a general view of it.

The second and fourth parts are by Prof A. Gehrmann of the same college as above, and an interesting account he gives of last year's progress made in these lines.

Dictionary of New Words is by William Healy, A. B. (Harv.), M. D., and is very useful in reading modern especially recent and foreign medical literature.

BLAKISTON'S VISITING LIST

To those familiar with its excellencies, comment upon the Blakiston "Physician's Visiting List" will seem superfluous. Bound in a luxurious, soft-leather cover with flap, pocket for memoranda and pencil, its appearance pleases as greatly as its practical utility. A revised "table of doses" will, after recent pharmacopeial changes, prove of frequent use, and the tables for calculating period of gestation together with the list of "Poisons and their Antidotes," "Incompatibles," etc., have proven their reliability. The metric and apothecaries' systems of weight are given together with a table for converting the latter into grams. A brief consideration of apnea and asphyxiation will on occasion be found useful and always at hand.

The book is arranged for twenty-five patients per week, and it is possible to make up the monthly accounts almost at a glance. Special pages are devoted to Obstetrical Engagements, Nurses' Addresses, Births, and Cash Account. Indeed everything that could be desirable in a book of this kind has been included. This is the fifty-sixth year of publication. Price $1.00, or for fifty patients per week $1.50. Monthly and perpetual editions are also offered. P. Blakiston Sons & Co., Philadelphia.

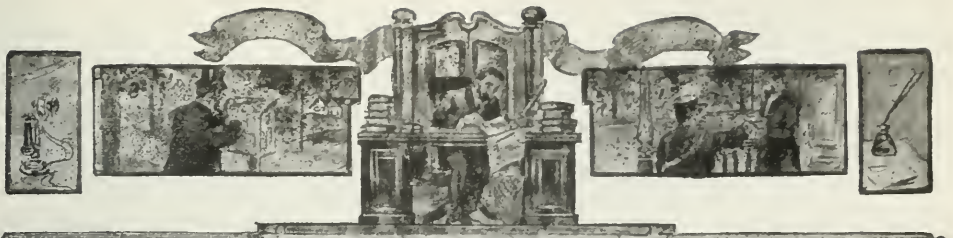
"BUFF, A TALE FOR THE THOUGHTFUL"

"Buff, A Tale for the Thoughtful," by Physiopath. Little, Brown & Co., Boston, 1906, $1.00. This book is written by an antivaccinationist, hence not for the "thoughtful," but for the narrow-minded. We wish to tell the author that "path" is from the Greek "pathos," and means suffering, hence the author calls himself inadvertently correctly according to his ideas, viz., physio, nature, and "path," suffering. The author and his congeners do not see that nature is not a physiology but a pathology, physically and morally, and that our ideals of both of these are derived from their terrible deficiencies in their natural state.

PATON'S "ESSENTIALS OF PHYSIOLOGY"

Essentials of Human Physiology, by D. Noel Paton, M. D., B. Sc., F. R. C. P. (Ed). Second edition. Revised and enlarged. W. T. Keener & Co., Chicago; William Green & Sons, Edinburgh and London, 1905, $2.75.

This is not a book for self-instruction, but one to use as a memory fastener in attending a course of didactic lectures and laboratory work in physiology. The diction is plain and simple and the pervading spirit of the author is that of the sympathetic teacher.



QUERIES

QUERY 5186.—"Dose of Strychnine Arsenate for Child." Please tell me the minimum age of a child that one can safely give gr. 1-134 of strychnine arsenate to three times a day, for a tonic.

S. W. B., Pennsylvania.

You can safely give 1-250 grain of strychnine arsenate t. i. d. to a child of six months or over. As a matter of fact we have given that amount of strychnine arsenate to a three-months old child three times daily for three to four days. You will find the triple arsenate granules, however, the best *tonic* formula for children, given after meals. Remember that the arsenate of strychnine is likely—in full doses—to produce evidences of arsenic sufficiency before the physiological action of strychnine becomes evident.—ED.

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QUERY 5187.—"Gonorrheal Arthritis." I wish to ask your advice as to the treatment of a case, treated by hospital and two other physicians of a neighboring town in the past year. Male, aged 24, present weight 118, regular weight 150-160. Diagnosis, gonorrheal rheumatism resulting in arthritis. Knees swollen and enlarged slightly, also ankles and feet, elbows slightly. Back of neck especially stiff and sore at times. Appetite fair. Pulse regular, somewhat quick. Page 52 of "Alkaloidal Therapeutics" recommends arsenic sulphide and calcium sulphide. Would other treatment be needed? This case has been on potassium iodide, saline, etc. I discontinued that treatment and gave salithia and calcalith, also tonic of glycerophosphates and lecithin. Result, gain of five pounds. Now, Doctor, I feel that this case can be helped, and am anxious to "win out," as there is quite an opposition. Having started well on the alkaloids, I wish for most marked success with them.

E. J. M., Maine.

As yet the writer has known of no case of gonorrheal rheumatism that has failed to recover on the sulphides of arsenic and calcium. No other treatment is requisite for the malady, but whatever else may be indicated should be given, such as laxatives for constipation, etc.—ED.

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QUERY 5188.—"Trypsin: Mycosis Fungoides." I have a patient with mycosis fungoides here who has asked me to get some trypsin and use it on him. I can find nothing in my books in regard to it and so write to you for information. Do you know anything about it? Who makes it? He got it out of some magazine—some English physician reports several cases of cancer treated by it. Dr. —— of Chicago and Dr. —— of Philadelphia have treated him without success. So if you can give me any information in regard to this preparation, how it is used, etc., will try it on him and see what it will do.

S. E. McC., Iowa.

Trypsin is manufactured by Reed & Carnrick, Jersey City, N. J. These gentlemen will give you all the literature upon this preparation upon request and doubtless will also supply you. Trypsin is an animal ferment and has been recommended in cancerous and other growths. Personally we have not had any great experience with the preparation, but in

the two instances in which we have applied it, it certainly proved beneficial. If you care to give us a clear idea of the conditions present in this case we will try to make some suggestions which may prove worth having. You do not state whether your patient is in the prefungoid or third stage of the disease (which of course in some instances is the first and only stage). Let us know something about the condition of tumors, extent, location, whether they are ulcerated or simply covered with a scaly crusted epidermis. Radiotherapy as you know has proven very efficacious in prefungoid mycosis. The ultra-violet ray has also given excellent results. Any pruritus or complicated dermatosis must be treated with soothing and antipruritic applications. Arsenic in full doses per os and by hypodermic injection is perhaps the most generally effective method of treatment. The triple arsenates with nuclein in full doses will, we feel sure, prove eminently satisfactory.—Ed.

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Query 5189.—"Syphilis?" I have a patient who is about sixty years of age. Sometime in January last there appeared on the outside of his penis, about half way down, a small chancre or chancroid about 3-16 of an inch in diameter and very shallow. He put on a little subnitrate of bismuth and a scab formed which remained for a week or more; when he pulled it off to put on another application of the medicine, there seemed to be little discharge, if any, and no pain whatever. The "chancre" (or whatever it was) remained between three and four weeks leaving no mark. I cannot say whether it was indurated or not as I did not see it. Soon after the healing of this sore an eruption came out on the palms of the hands and soles of the feet but on no other part of the body. Each blotch was about 3-16 of an inch in diameter with a flat surface or covered with a white skin which ruptured in the center. No discharge was observed and there was no itching and no pain. In some of the blotches there appeared to be a little white chalky matter which could be scraped away. This eruption lasted about four weeks during which time the patient's appetite was not very good. Still his general health seemed good. After this eruption had passed away the gums in the front part of the lower jaw became sore and felt as though a small chain was stretched around them with more or less pain, the gums receding slightly from the teeth and a milky white fluid seeming to exude from the gums near the teeth. At this time the breath was bad and the lower lip slightly swollen. The patient complained of a taste as of copper in the mouth which he attributed to nervous indigestion as he had more or less trouble in times past with that metallic taste in the mouth. Applications of tannic acid seemed to relieve the soreness but he noticed that fresh colds aggravated it. At the present time, five weeks after the gums became sore, they are nearly well. He says that he took very little medicine during the time and *no* mercury. He has been my patient now for about a week and the case has puzzled me greatly, for he is apparently in perfect health and says he never felt better in his life. It seems to me to be a case with three distinct stages. What is it? What may I expect in the future? What treatment if any would you suggest?

A. W., Iowa.

The patient may believe he took no mercury but how does he know it? While this is not a typic case the palmar lesions are almost distinctively specific, and their occurrence symmetrically is a further luetic sign. But if it is syphilis he will show indurations of the inguinal glands, and the antisyphilitic granule No. 2 will quickly cause the disappearance of any remaining evidences.—Ed.

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Query 5190.—"Irritable Urethra." A Middle-aged professional gentleman has irritable urethra. It is not sore and he has no discharge but there are some floating shreds in his urine, and he says the urethra is uncomfortable most of the time, not painful. There is no trouble about holding his urine nor unduly frequent urination, nor is there any stricture nor enlargement of the prostate. I can pass a 31 F. straight steel sound without difficulty, and with only a little discomfort to the patient though there are one or two tender

spots in his urethra. His chief complaint is the continual though slight sense of discomfort in the urethra and premature ejaculation. This latter has increased of late to such an extent as to render him practically impotent. He suffers a little from piles if he allows his bowels to become constipated. He is a man of quiet, regular habits; smokes a little, takes a little beer occasionally at lunch and leads a somewhat sedentary life. He had a mild attack of gonorrhea in his youth. The urethra has been unduly sensitive for some years but it is only within the last three years that it has given him any serious trouble. During this time he consulted some eminent genitourinary specialist without getting any help.

I have treated him by keeping the bowels moderately free with salines and plenty of water, correcting any undue acidity of the urine when present with calcalith and using a ten per cent ointment of argyrol in vaseline applied to the deep urethra with a Bumstead syringe. Have thought at times that I was making headway and more often that I was not.

G. E. B., New York.

Some men have only so much sexual strength and this they draw heavily upon early, becoming as a result sexually bankrupt when they should be in their prime. Others, perfectly normal as far as capacity goes, so abuse the function during the formative period that they enter manhood permanently deranged. Still another class reach maturity safe and sound but ruin themselves by unnatural practices. In this case you have evidently one of those cases which require most careful and delicate examination. The endoscope might reveal the most interesting condition —to the pathologist!—and with such knowledge treatment might be instituted with probability of results. We fear that mere empirical measures will not prove satisfactory. First: What *are* those "floating shreds?" What conditions are prostate and vesicles in? Is there any relaxation of penile vessels? The dorsal vein might well be tied if such is the case. Examine prostate. Massage it through a "puddle" of euarol—thrown into the rectum—twice weekly; pass cold steel sounds (iced) or better, use the psychrophore and have the parts bathed with very *hot* water then gradually sponged off with cooler water till *cold* is used; this night and morning by patient himself. Inject hemorrhoids; dilate sphincter ani thoroughly and stop sexual intercourse *pro tem.* entirely. Internally give cornin gr. 1, four times a day, with sanguinarine gr. 1-67. After passage of sound inject twenty drops of euarol at body heat. This is the best you can do.—Ed.

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Query 5191.—"Treatment of Burns." I have a little patient who has a bad burn. In fact, the entire skin is all destroyed and gone from the right arm but a strip along the upper outside of the arm from body to wrist. It has been two weeks since the burn and the wound is all clean but as red as a beet and ready for a new skin. How could I hasten a cure? Can you tell me how to graft some skin on it, or can I put an antiseptic powder on it? I am wrapping it in silk protective which is smeared with unguentine.

J. M. T., Iowa.

It may interest you to know that equal parts of gum camphor and carbolic acid crystals rubbed down together in a mortar form a perfectly harmless antiseptic fluid which can be applied freely to wounded or burned surfaces. It can be diluted at will to any extent with purified petrolatum. Carbenzol, Doctor, is without any question, superior to ichthyol and is applicable in a very wide range of cases; in burns especially is it of use. We would be inclined in this case to use nuclein dusting powder for a few days and then apply "pin point" grafts, covering same with antiseptic gauze soaked with bovinine. Over the grafts apply a piece of perforated rubber tissue, then the gauze thoroughly soaked, another sheet of unperforated tissue, cotton and bandage. Be careful as to asepsis and change dressing twice daily, not removing, however, the *perforated* tissue which should be cleansed by a spray of boric acid solution applied with an atomizer. In this way you can get perfect healing. The

grafts should be very small (pin-point) taken from the patient's other arm or thigh by elevating the skin with a sharp needle and snipping off with a small pair of scissors. Remove the graft, Doctor, to the injured surface which has been thoroughly cleansed with boric acid solution and moistened with bovinine.—Ed.

Query 5192—"Diphtheria and Membranous Croup." I have been requested to read a paper on "Diphtheria and Its Relation to Membranous Croup; Should the Treatment be the same in both; If not, Why?" I notice that you make the statement to the effect that they are essentially different, and therefore the treatment should differ.

J. G., Kentucky.

We take great pleasure in giving in a few words our position as regards croup and diphtheria. The latter is most distinctly a profound systemic toxemia—the former is practically a localized disorder. The points of resemblance are: Both diseases affect the mucosa in each case. Here however similarity ceases. In diphtheria we have all the primary evidence of germ invasion—headache, lassitude, marked rise in temperature, etc. The Klebs-Loeffler bacillus is easily demonstrated to be present; in most cases the patellar reflex is lost (early evidence of profound toxemia); albuminuria occurs in a large percentage of cases. Moreover the exudate in diphtheria is quite different from that which exists in pseudomembranous croup. In diphtheria, at first, a thin whitish pellicle usually appears upon the fauces and tonsils but this soon changes and becomes thick and firmly adherent to underlying tissues. Fully developed the membrane resembles nothing so much as a piece of wet wash leather. The odor is characteristic. In membranous croup the membrane is not adherent; there is no bleeding of underlying mucosa when it is removed; there is no odor (unless streptococcic infection); and the high fever, lost reflex and other signs of systemic infection are absent. In the latter stages of membranous croup (when ill-treated) there may be more or less paralysis, but this is caused by deoxygenation of the blood, and other evidences of suffocation are apparent.

In diphtheria the infection and systemic toxemia are produced by a definite microorganism which is not present in other diseases. It is possible for the Klebs-Loeffler bacillus to be present in the respiratory tract of the patients suffering with membranous croup, but the germ is inactive—an alien. In every case of diphtheria the Klebs-Loeffler bacilli swarm and propagate, evolving the toxin, which, like serpent venom, destroys human life by disorganizing the blood and paralyzing the nervous system. The membranous croup patient dies (if he dies at all) within three days, from respiratory failure, due generally to congestive involvement of the more important organs.

Simple membranous sore throat and ulcerative tonsillitis may be classed as "diphtheritic," but the "membrane" here is easily washed and wiped off; does not leave a bleeding surface (ulcers sometimes exist) and the Klebs-Loeffler bacillus is absent from discharges.

Finally, croup is an idiopathic disease: diphtheria does not, cannot, arise spontaneously. Croup is not contagious; diphtheria is preeminently so. Croup is primarily an affection of the larynx; diphtheria generally affects the pharynx. The two diseases present entirely different symptoms and the croup patient *never* suffers from paralytic sequelae.

The croup patient first becomes hoarse; this symptom usually appears in the early evening. By midnight there may be coughing, stertorous breathing and the well known "crouping." As the night passes the symptoms increase in severity and the membrane and inflammatory (catarrahal?) product may be noted. Under proper treatment portions of the false membrane are ejected and such ejection is followed by immediate relief. It is quite possible for recovery before morning; death may occur within the same space of time. *Obstruction to breathing* is the main symptom;

this is caused by congestion and obstruction (due to false membrane) of air passages. If not relieved such conditions cause deoxygenation of the blood, toxemia, convulsions and death.

With these facts and those contained in our pamphlet upon calx iodata we feel sure that you will be able to grasp our idea of both membranous croup and diphtheria. In closing we might add that we well understand that there are some cases of membranous croup which are diphtheritic in character. If the Klebs-Loeffler bacillus could find a better field than that offered by the congested mucosa of the croup patient we do not know where it would be. However the typical case of membranous croup runs a short course and the man accustomed to treat both varieties of disease will not be apt to worry about diphtheria while fighting a stubborn case of croup in the middle of the night. *Later* if "mixed symptoms" present diphtheria must be thought of and a culture made. The writer firmly believes that many men have never seen a case of real membranous croup; this is really more of a rural than an urban malady. On the other hand, diphtheria is most distinctly a disease of the city or town. We have to deal with three separate conditions: (1) Diphtheria; (2) membranous sore throat—which may or may not be "diphtheritic"; (3) membranous—or "pseudomembranous" croup. The last has no more to do with the Klebs-Loeffler bacillus than the gout. If the croup patient be infected however by this microorganism he is most likely to present all the symptoms following such infections, briefly, have diphtheria on top of croup!

The following case illustrates the distinction: A physician from Mississippi informed the writer that he had a case of typical membranous croup. The physician who called him in consultation looked upon this disease as identical with diphtheria, in accordance with the modern ideas. Two thousand units of antitoxin were administered, and after waiting the usual period and no benefit resulting, the dose was twice repeated, making 6000 units in all. No benefit following, and the case being desperate, calx iodata was administered, with the result that the threatening symptoms subsided, and the child was soon well. Clinical observation has shown in thousands of instances that true diphtheria is controlled by calx sulphurata given to saturation, and that true non-diphtheritic membranous croup is equally controlled by calx iodata, neither of these remedies exerting any appreciable control over the other disease. Bacteriologic investigations confirm this view, as in some cases Klebs-Loeffler bacillus is discovered, and in other cases it is absent—the former being true diphtheria, the latter not. A complication which assists in muddling the matter is the fact, that a case not diphtheritic at the start may have diphtheria ingrafted upon it in the later stages. However, in view of this latter fact, while we are firmly convinced of the non-identity of the two diseases, we agree with the Boards of Health, which, from motives of expediency, look upon all these cases as diphtheria officially; in order to be on the safe side, and able to take the proper precautions against the spread of the disease. This is a wise precaution from the hygienic standpoint, but should not mislead us in judging of the pathology or therapeutics of these diseases.—Ed.

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Query 5193.—"Infantilism." Little girl, aged 5 years 2 months, well developed, but about the size of a child of three. Eats well, sleeps well, but has a terrible appetite for certain plants: dandelion, plantain, nasturtium and grass; she will also eat dirt or plaster. At meals she is very particular about her diet; will not eat meat, but is fond of vegetables, rice and oatmeal, and drinks much water. Bowels and kidneys normal. She appeared bright and healthy until she was about six weeks old, when she had some nervous disease which left her helpless; for eighteen months lay just as she was placed, and her head fell as if her neck were a rag; feet and hands hardly moved during that time. She gradually got so she held her head up, and later be-

gan to use her feet, walk around the room by holding on chairs, but did not walk alone until she was 4½ years old. She does not talk but will say some words, but does not appear to understand when spoken to, only occasionally. Sight and hearing are good. She is very active, always busy playing, but does not care for company. Wants to play alone. Now is there anything that can be done to make her understand and talk?

G. R. H., Wisconsin.

It is impossible to make a positive diagnosis at this distance, but many of these cases of slow physical and mental development, infantilism, are really cases of sporadic cretinism. If further study of this case should make this fairly certain the patient should of course be put on a course of thyroid. We think it will do good. Careful feeding with the most nutritious food, and attention to the bowels are of course indicated.—Ed.

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Query 5194.—"Disease of Spinal Cord." Male, age 39. Mother and father living. Typhoid at six years of age. At age of twenty-two thinks he contracted syphilis; in poor health ever since. Has the appearance of a man of sixty, inequality of pupils, exaggerated reflexes, pains along the sciatic nerves, also shooting pains not localized to any one area. Areas of hyperesthesia, also anesthesia. Urine negative; bowels regular. Heart and lungs normal. Sleeps good if the paroxysmal pains do not awaken him. Circulation poor, especially lower extremities. Attacks of dizziness, depression of spirits. Cannot follow his profession as any exertion causes a nervous collapse; has been unable to perform any duties for the past two years. A New York specialist has diagnosed the case as one of sclerosis of the spinal cord. Your opinion would be highly appreciated as to the diagnosis and treatment.

G. E. H., New Jersey.

This is altogether too serious a condition to be treated haphazard. There is evidently some affection of the cord; the New York specialist was probably right, though data are lacking on which to make a diagnosis.

We should like to know something more definite as to the reflexes, deep and superficial, and a specimen of urine might prove enlightening. Lecithin and nuclein, with zinc phosphide and tonic alterative eliminants might prove beneficial, but we are inclined to fear that this is one of those cases which fail to respond satisfactorily to medication. The syphilitic taint only makes the diagnosis of sclerosis more probable.—Ed.

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Query 5195.—"Persistent Bronchitis in Infant." Female, seven months old; when three months of age had a slight attack of whooping cough (so mother tells me), then after it got over it developed a laryngitis that seems somewhat spasmodic in character; also bronchitis, with rales over chest, many moist, but lungs not involved. This it has had for three weeks, then it got worse for four weeks when mother called me to see it. The noise it made on inspiration was quite loud and of a somewhat "snoring" character. The two faucal tonsils are enlarged but not to any marked extent. Trouble seems mostly in larynx and tubes. The father has been a sufferer for years from catarrh of nose and throat and three of the children have had trouble with nose and throat. One had tonsils removed. When I was called in I ordered a rag wrung out of hot water and a few drops of turpentine applied over it and this put to chest and covered with flannel; also gave calomel in small doses followed by oil; internally I gave calcidin and nuclein, with a mixture containing codeine, belladonna, etc., for cough. These produced only slight improvement. Child looks healthy and is very bright and cheerful; eats and sleeps good. It is now seven months old and no teeth have as yet made an appearance. The noise is heard when she breathes with mouth or nose, as she can breathe through nose. Also heard when she takes the bottle.

C. J. B., Pennsylvania.

Apply over the upper thorax and throat compresses wrung out of a hot solution of epsom salt (one ounce to the quart) to which add ten drops of carbolic acid. Cover the compress with flannel and change frequently. Inject into each nostril a solution made by dissolving one of the menthol compound tablets in twelve ounces of water, and spray nose subsequently with campho-menthol, using an oil atomizer. One-half of an antiscorbutic tablet with emetine, gr. 1-67, and one teaspoonful of a sweetened solution of hyoscyamine, gr. 1-250 to ten teaspoonfuls of water, may be given alternately every four hours, and if the cough and bronchial symptoms generally do not speedily lessen you may give the hyoscyamine solution (a half teaspoonful) *frequently* to effect. Very small doses of calomel twice a week and calcium lactophosphate, one three times a day for its reconstructive action, will also be useful.—Ed.

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Query 5196.—"Peristaltic Unrest." Woman, 78 years of age, slightly ruptured on right side. Has a continual movement about abdomen, principally in bowels, judging from appearance. Holding the hand flatly pressed on the belly it feels as if the entire abdominal walls and the intestines were continually drawing together, contracting and suddenly relaxing. Sometimes it reverses from one side of bowels to the other. Sometimes movement is felt in the limbs, but I can't see any movement there. Duration of trouble six years, gradually growing worse. Patient is not able to sit up. She describes her sensation as a crawling and says crawling gets gradually worse after she sits up, till she is compelled to lie down. Sometimes "things" appear to draw up in a knot and fail to relax, and she states that a warm poultice is the only relief.

W. F. S., Texas.

Very little idea of the real conditions present can be gained from the description given of your old lady patient. This may be merely "peristaltic unrest," or a choreiform affection. The age of the patient is of course against her, but as we have no knowledge of her general condition we are unable to make even a provisional prognosis.

Plentiful high enemata of hot normal salt solution would perhaps be of benefit and we think massage over the abdominal area with warm olive oil might relieve her. Try to discover area of irritation. Examine the anal sphincter; look for possible tumor (abdominal) and test reflexes. How is nutrition? Any pain after eating or loud noises in bowels? Try one nux and capsicum compound granule every four hours and give one of the calmative for children (Candler) granules with a little hot, sweetened water when trouble commences and repeat dose in an hour. Or if this is not effective give strychnine, cicutine, aa gr. 1-134, hyoscyamine gr. 1-500, digitalin gr. 1-134, in same way, and with meals exhibit ten drops of dil. phosphoric acid in water. —Ed.

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Query 5197.—"Anesthetic Tablet in Obstetrics." I wish to inquire about the hyoscine, morphine, cactin hypodermic tablets. Please state under what conditions they should be given in obstetrical practice? Would not the morphine tend to mitigate the frequency and force of active labor? Any information as to this important matter will be most kindly received.

R. S. B., Iowa.

The hyoscine, morphine and cactin compound may be given in all obstetrical cases where it is desirable to relieve pain, reduce spasm and produce either moderate or profound anesthesia. The combination of morphine and hyoscine gives us an action quite different from that following the exhibition of either drug separately. Women who have suffered agonies in prior deliveries or who have had to be delivered instrumentally have, during the hyoscine and morphine sleep, been delivered easily and naturally, awaking without any knowledge of the pangs of childbirth. Moreover, this compound produces the most perfect surgical anesthesia. Men who have seen operations performed upon patients under the influence of this tablet have gone away expressing themselves thus:

"It is wonderful," "almost seems hoodooism," "the most remarkable and satisfactory anesthesia I have ever witnessed," etc. Recently Dr. Lanphear operated for us upon three cases within two hours, one operation for removal of appendix, one for amputation of breast (radical), one dilation of sphincters in an epileptic. In each instance the patient was perfectly unconscious, sleeping peacefully and awaking several hours later free from pain, nausea, headache, no disagreeable sequel whatever. Do not be afraid of the slow respiration which often follows the exhibition of the second tablet. Some patients breathe only eight or ten times per minute, and in rare instances only six times. So long as the face is flushed and the heart action good this slow respiration need not disturb you.

In obstetric work the formula proves ideal. It is well to give one-half tablet when pains begin to become oppressive and a second dose (hypodermatically *always*) when dilation is complete and the head begins to descend. The force of pains is not lessened and labor progresses quite normally. The rule in obstetric work is to give enough to relieve pain, exhibiting the anesthetic as late as possible. We do not want anesthesia in the first stage but we do require it during expulsion. Scores of men are using the Abbott-Lanphear method with perfect results.—Ed.

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Query 5198.—"Tumor Following Hen-Bite." I want to thank you for advice in regard to the tumor on old lady's hand from hen-bite. Several of us have been called. I would have removed it long ago if they would have let me; but the other physicians thought that the best thing to do was to let it alone. The family is becoming very uneasy, as it continues to grow and pains her continually. I think they are coming around and will want me to take it off. Yet, the only problem that bothers me is, just how to dress it to get the most rapid and certain results after I operate. I would like to see it heal at once; and the dressing most likely to promote rapid results, is what I am thinking about now—provided I get the job of removing it.

A. C., Illinois.

The doctor had asked for advice in a case of tumor on the hand of an elderly lady which appeared after being pecked by a hen. We advised prompt removal of the growth. In response to the above (second letter) we wrote:

Sterilize your instruments carefully, cleanse the area to be operated upon by ordinary methods, making an elliptical incision, thus including all affected tissue, dissect out the whole tissue enclosed between incisions, beginning at the extreme angle and lifting up the mass with a pair of forceps, tying off vessels if you meet any, then when the mass has been removed dry thoroughly with absorbent gauze and bring the edges together with catgut, paint the line of incision with iodoform-collodion, cover with gauze and bandage, simply dry sterile dressing. You will have no trouble whatever we feel sure, especially if you have the patient keep her hand in a sling and keep her bowels thoroughly open with salines. Before operating give a few doses of blue mass and soda, or calomel and podophyllin, followed by saline in six hours. If you have any fear of blood poisoning put her on calcium sulphide, gr. 1-6 hourly for forty-eight hours and echinacea two tablets every three hours.—Ed.

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Query 5199.—"Was It Tetanus?" In October, 1904, I was called to see a veterinarian who was suffering severely with a furuncle midway between the elbow and wrist of his right arm, red and swollen. After prescribing for him I left and in less than fifteen minutes his whole body, except the muscles of the face, was thrown into a rigid spasm. This was repeated off and on at intervals of several hours for five days. Once it was necessary to relieve him with chloroform, taking about an ounce. For at least a day or two the muscles of the chest, stomach and arms were constantly more or less drawn, so much as to interfere with his breathing. His fever kept between 100°-

102°F for five days. Previous to his attack he had been treating several cases of tetanus. I told him he had suffered an attack of tetanus, but a mixed infection, as the avenue of infection was through the furuncle which was partly opened of its own accord. Now this "hoss doctor" points his finger at me and tells me there was no "tetanus" about it because his jaws were not locked. Who is right?

C. G., Illinois.

Tetanus and trismus or (lock-jaw) have been considered synonymous and naturally in true trismus the muscles of the jaw *are* first affected in nearly every case; later, those of the trunk suffer. Osler says "begins with lock-jaw, later spreads downward, the arms and hands escaping." Stiffness and tension in back of neck and muscles of mastication first present; then tonic spasms of masseters render the facial muscles immobile. Rigidity of cervical muscles is apparent. The physiognomy is diagnostic, the mouth being drawn down at corners so that the patient seems to be grinning sardonically. Opisthotonus then appears—preceded sometimes by rigidity of the trunk, and the belly becomes hard as a board. The arms usually escape. Rigidity is a constant feature, paroxysms occurring at intervals; dyspnea and cyanosis usually are noted but convulsive dysphagia, seen in hydrophobia, is rarely observed. Fever always exists and is moderate in ordinary non-fatal cases but may reach 109°F, in fatal cases. In your case the absence of rigidity of cervical and facial muscles, together with lack of opisthotonus would cause a strict diagnostician to pronounce the disease not true trismus (or lock-jaw) but one of "tetaniform convulsions," due possibly to invasion by an unknown bacillus. Here again we have an example of the necessity for microscopic work by the general practician. An examination of the body fluids and discharge from the "boil" (presumed point of entry) in this case might have proved enlightening. That the *bacillus tetani* may have gained access to the "boil" and there undergone certain changes which caused the toxin it produces to affect the system differently is possible. As you will see, a stake-holder would have some difficulty in settling bets upon the matter and the "hoss doctor" may well be excused for not appreciating the difference.—Ed.

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Query 5200.—"A Prescription for Whooping Cough." In that prescription given in the *A. J. C. M.* for December (page 1581) for whooping-cough the writer does not say how much of the aromatic syr. is used. Will you please write me the prescription in full, as I would like to try it.

E. C. Van S., Michigan.

The formula desired reads: "Atropine sulph. (gr. 1-250), granules No. 10; aconitine (gr. 1-134), granules No. 8; fl. ext. tolu dr. 1; aromatic syrup q. s. ad. ozs. M. Sig. One teaspoonful every four hours to a child of four. I add calcium sulphide, 1-6 to 1-2 gr. and calx iodata gr. 1-3 to each dose."

The quantity of aromatic syrup (or elixir) was evidently omitted by mistake and should be given in sufficient quantity to make the number of doses fit the age and should vary according to the impression the physician desires to make. For instance, Dr. Coonly was prescribing for a child four years of age. If he desired to give one-half granule of aconitine at a dose he would make sixteen doses, or a two-ounce mixture, while if he desired to make a granule of aconitine serve for four doses he would make thirty-two drams or four ounces. Personally the writer prefers to give aromatic elixir slightly diluted, full doses of full strength aromatic elixir being apt to prove slightly nauseating.—Ed.

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Query 5201.—"Calomel in Gonorrhea." I noticed in the December Clinical Medicine calomel suggested as a remedy for gonorrhea. The idea struck me as a good one. Last Friday I had a case of ten days' standing and after washing with permanganate solution and giving internally remedies to cleanse the system followed with gonorrheal pills, I injected castor oil and calomel and ordered him to use permanganate solution and come back next day. I saw great improvement. I used the castor

oil and calomel and as it was a little heavy or thick I diluted with a few drops of coal oil (kerosene), which caused a little smarting. In four days patient was well. Have you tried it?

W. B. H., Tennessee.

We note with interest your use of calomel in gonorrhea. We shall make some experiments along this line ourselves and trust that others will take every opportunity to test the efficacy of the method. It *ought* to prove effective.—Ed.

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Query 5202.—"Chorea of Traumatic Origin?" I have a two-year-old patient peculiarly afflicted. The symptoms are choreic and have prevailed ever since the child was a week or two old. It was a case of delivery with forceps. The boy seems fairly well nourished and free from all deformities, grows fast enough, but all his movements are spasmodic; seems fairly intelligent and knows where everything is in the house, but doesn't try to talk. The five senses seem to be normal. Has been treated by several physicians without benefit, among them an osteopath. I have been treating him about three months. Commenced with Waugh's anodyne granule to control spasms, which gave quiet rest when he was asleep but not when awake. I am now giving arsenous acid, gr. 1-67 four times a day, and hyoscyamine, gr. 1-250 at the same time to control nervousness. He is getting stronger and growing and the parents are well pleased with the improvement, but I can't give them much hope for a cure. The little fellow is also afflicted with strabismus. He gets around all over the house in a rolling baby jumper but can't stand on his legs; perhaps he could if he could control his motions. I have searched through what literature I have on the subject but find no case wherein chorea commenced so early in life. I think it probable that too much violence was used in delivery, resulting in injury to the spinal cord near the base of the brain, although there is no external evidence of it. If the "family" can throw any light on the subject I would be grateful. J. B. W., Idaho.

You are probably correct in your opinion that there has been injury to the cord, and these cases are as a rule very rebellious to treatment. However, you might with advantage use small doses of cypripedin and scutellarin, say, one or two granules each three times daily with a quarter of a tablet of lecithin; cicutine, one-half granule in solution, may be exhibited per rectum for a few days to control the choreic movements. Fly blisters the size of a quarter might be applied along the spine or croton oil rubbed in to pustulation. The eyes should receive attention, the child should be fed on easily assimilated and nutritious food, the bowels should be kept clean and aseptic with the intestinal antiseptic in small repeated doses, and gr. 1-67 of zinc phosphide exhibited after the three main meals of the day. Just try this treatment for a month and then report the condition. Are you quite sure that there is no displacement of the vertebrae, and is there any wasting of muscles? —Ed.

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Query 5203.—"Impotence." Please advise what to give in a case of impotence (probably functional). Patient is a man forty years old. Took the so-called water cure, etc., two years ago for liquor habit. No erectile power since then. Patient is in good health otherwise.

W. J. B., Ohio.

Before we can give you any really efficacious advice relative to the case of "impotence" we must know what conditions prevail. Examine your patient carefully, note condition of prostate, deep urethra, penile vessels, circulation, reflexes, etc. Pay especial attention to the psychic side of the matter. Let us suggest that you give sanguinarine, gr. 1-67, and the "aphrodisiac (tonic) compound," one every three or four hours *pro tem.* and bathe the parts morning and night with a cold salt solution. Find out what kind of things he took when he was treated for the "liquor habit." You will probably discover that he was saturated with atropine or similar drug. The use of cold steel sounds may prove beneficial. —Ed.

ATROPINE has no apparent effect on the normal uterus.—Cushny, *B. M. J.*

EROTOMANIA.—Camphor monobromide is a good palliative remedy.—Earp, *Monitor.*

NIGHT SWEATS.—In night-sweats of phthisis Earp advises picrotoxin, gr. 1-100 to 1-200.—*Monitor.*

QUININE IN LABOR.—In labor quinine acts as an oxytoxic after pains have begun, not before.—Ryan, *Monitor.*

TIMES are coming when you won't care what style of monument is erected over you. Meantime, keep a climbin'.

GLONOIN is perhaps the best drug in hemoptysis since it diminishes the flow of blood to the lungs.—*Therap. Gazette.*

EPISTAXIS.—Eliot (*Va. Med.*) gives good reasons against the use of Monsell's for dangerous epistaxis in powder or solution.

IVY POISONING.—Earp advises lobelia infusion, grindelia tr., or quinine 2 drams to half pint of water.—*Med. Monitor.*

COPPER.—Moulden credits copper with a selective action on amoeba coli and lower forms of vegetable life.—*Med. Record.*

ADRENALIN.—The effects of adrenalin on the uteri of cats and rabbits is similar to those of nicotine.—Cushny, *B. M. J.*

DIONIN.—Savage finds that dionin aids the action upon the pupil of both atropine and eserine, dissolving encumbering plasma.

TYPHOID HEMORRHAGE.—Complete rest, cold to abdomen, morphine and atropine hypodermically.—G. R. Tubbs, *Medical Brief.*

DIONIN in 5 per cent watery solution or vaselin ointment is a very valuable ocular astringent.—Kahn, Cent, States *Med. Monitor*

SYPHILIS.—One of the best preparations of mercury to be used in syphilis is the salicylate; dose gr. 1-10 to 1-4.—Earp, *Monitor.*

INCOMPATIBLES.—Lead acetate, silver nitrate, potass. iodide and mercury bichloride, being incompatible with almost everything, had best be given alone.—*Med. Fort.*

SCARLATINA.—Luhan reports 129 cases of scarlatina without a death, treated by a sulphocarbolate of soda mixture.—*Amer. Medicine.*

ECLAMPSIA.—Scopolamine gr. 1-50, morphine gr. 1-5, flext. veratrum gtt. 15, by hypo injected deeply into the thorax.—Laurendeau.

CATARACT.—Wilkinson believes that forming cataract may be delayed or prevented by treatment, local and constitutional.—*Gaillard's.*

SCOPOLAMINE.—Coleman reports quite favorably on scopolamine in obstetric cases, including one case of uremic convulsions.—*Gaillard's.*

TYPHOID FEVER.—Hutchinson attributes part of the benefit from milk in typhoid fever to the antiseptic action of lactic acid.—*B. M. J.*

PHOSPHORUS POISONING.—Earp advises copper sulphate as an emetic and chemic antidote, copper phosphide being little soluble.—*Monitor.*

BEING USEFUL.—L'homme n'a rien de plus precieux que ce qui peut etre utile a l'homme. That leaves out the no-treatment doctor.

CECIL WALL found that neither arsenic nor sodium salicylate shortened the period of chorea but aspirin did quite decidedly.—*B. M. J.*

MYOCARDITIS.—In the *Albany Med. Annals* Pearce treats of myocarditis as caused by injections of adrenalin, an important matter indeed.

ASSAY OF JABORANDI.—From Puckner's comments in *Pharm. Review* we infer that the U. S. P. assay of jaborandi looks only to total alkaloids.

WHOOPING COUGH.—Rothschild cures whooping-cough by five minutes' chloroformization pushed to muscular relaxation.—*Med. Press and Circ.*

CONVALLARIA acts like digitalis on the heart, also is cathartic and diuretic, and is not disposed to cumulate or irritate the stomach.—*Monitor.*

CRITIC AND GUIDE.—It is simply impossible to scan or glance through the *Critic and Guide.* You must take time to read it, and to think over it afterwards. There is that which compels attention in every issue.

Epistaxis of scarlatina may be stopped by chromic acid solution, one grain to the ounce.—G. F. Heinen.

Ringing in the Ear may be caused by anemia, neurasthenia, gout, or pressure of wad on the drum.—Heinen.

Ear Drum.—Practical destruction of the drum membrane may leave fairly good hearing power.—G. F. Heinen.

Gastralgia.—Prompt and complete evacuation of the stomach is often the best anodyne in gastralgia.—Heinen.

Acidity.—The HCl of the gastric contents is increased in gastric ulcer, and neurotic hyperchlorhydria.—G. F. Heinen.

Anise a Galactogogue.—Try anise, internal and external, if the milk of young mothers is not sufficient in quantity.—Heinen.

Mastoid Infection.—Syringing of the ear may cause infection of the mastoid cells if the eustachian tube is not kept open.—Heinen.

Gelseminine muriate, gr. 1-250 three or four times a day will give relief from flashes due to the menopause.—Daugherty-Traxler.

Cancer of the Stomach has constant pain, coffee-ground vomiting, lactic acid, mostly no HCl, tumor, rapid emaciation.—Heinen.

Eruption of Measles.—In the beginning of measles the hot bath encourages the development of the eruption.—G. F. Heinen.

Desquamation of the Skin occurs after all hyperemia that continues for any length of time, not in scarlatina only.—Heinen.

Pneumonia.—The alkaloidal treatment in skilful hands has a brilliant record when exhibited in pneumonia.—Ed., *Milwaukee Med. Journal.*

Pure Milk.—See the *Iowa Medical Jour.* for August for an excellent paper on Pure Milk by Dr. G. H. Sumner of Waterloo, with discussion.

Tetanus.— Kinyoun (*Med. Record*), dressing wounds with tetanus antitoxin, finds that they heal readily and with less than usual disturbance.

Tuberculosis.—Malone treats tuberculosis by internal antiseptics, iodine and phenol, adding camphor to lessen irritation.—*Merck's Archives.*

Deafness.—If a watch is heard better when held on the mastoid process than in front of the ear deafness is not due to auditory nerve.—Heinen.

Therapeutic Revival.—In therapeutics there has been a considerable reaction from the Oslerian school of medical nihilism. There is now a readjusting of values of pure drugs, and the awakening of the public mind and conscience to the evils of patent medicines and promiscuous drugging has accentuated the demand for accuracy and positiveness on the part of physicians.—*Southern Med. and Surg.*

Alcohol, Opium and Quinine hinder phagocytic action and are of questionable utility in infectious maladies.—Ray Lankester, *St. L. Med. Rev.*

Maternal Impressions.—*Surgery, Gynecology and Obstetrics* for September has a masterly paper on Maternal Impressions by Arch. Dixon. Send for it.

Nicotine markedly contracts the uterus of the virgin rabbit, relaxes that of the virgin cat; powerfully contracts the pregnant uteri of both.—Cushny, *B. M. J.*

Renal Colic.—I have learned not to depend on the x-ray for diagnosis, whether the results are positive or negative.—Bransford Lewis, *Medical Record.*

"Goodness and Badness."—With all this badness there's a big lot of goodness all around if we can keep it in sight.—*Albright's Office Practitioner.*

Intestinal Autotoxemias.—Milk is worthless, curdled milk useful, fermented milks (kefir, matzoon, koumiss) give best results.—Gardette, *Int. Ther.*

Cholera Infantum.—Tuller describes the treatment of cholera infantum as sedation, rest to the digestive tract and intestinal antisepsis.—*Med. Brief.*

High Arterial Tension may be due to increase in the peripheral resistance, in the heart's force, or in the volume of the blood.—Coley, *Brit. Med. Journal.*

Alcohol and Uric Acid.—Jackson and Blackfan find that alcohol increases the excretion of uric acid by increased synthesis.—*Albany Med. Annals.*

Febrile Delirium.—Hyoscine hydrobromide is a good remedy but should be used with caution.—Ryan, *Monitor.* Give gr. 1-1000 every ten minutes till effect.

Starvation.—The theory that starvation keeps the intestines quiet is untenable. The starvation treatment is no treatment at all.—Brownson, *Med. Record.*

Pain and Inflammation.—Spiess says rightly that pain is the cause and not the result of inflammation, the earliest reaction to irritation.—*Med. Standard.*

Stone in Bladder.—Keyes spoke of cases where frequent and painful urination was the only symptom of renal stone. Some cases of renal colic are entirely due to intestinal derangement without any disorder of the urinary organs. Though renal colic is the cardinal symptom of renal stone, severe

and typical colic may arise from other causes. In a number of cases other conditions, genital, urinary, intestinal, etc., produce symptoms suggestive of renal colic.—Keyes, *Med. Record.*

DIGITALIN IN PNEUMONIA.—It is said that digitalin will destroy pneumococci and neutralize their toxin; does good work in pneumonia at any rate. —Heinen.

BROMINE AS ANTISEPTIC.—Terry calls attention to the value of bromine solutions as antiseptics, in the *Medical Standard* which is full as usual of good things.

DIABETES INSIPIDUS.—H. M. Chase of Rock Island cured a child of diabetes insipidus with euonymin, seven tablets a day, for several months. —*The Critique.*

HAY FEVER is a toxemia affecting the upper air passages, their accessory sinuses, and the mucous membrane contiguous thereto.—*Thornton, K. C. Med. I. L.*

PNEUMONIA.—We believe it is time for the exponents of "masterly inactivity" to admit that there is virtue in treatment.—Neilson, *Milwaukee Med. Journal.*

LOCALIZED SEPSIS.—All localized septic trouble will melt away under echinacea and calcium sulphide and "clean out" treatment in one week.—Daugherty-Traxler.

MORNING VOMITING of alcoholics is due to chronic gastritis. Gastritis has diffuse pain increased by taking food; but no hemorrhage, no lactic acid.—Heinen.

HEMORRHAGES.—Seeley reports favorably on stypticin as a remedy for hemorrhages of almost any variety. Dose, gr. 3-4 every three hours.—*Merck's Archives.*

DON'T MISS 'EM.—Whatever else you miss don't let the Elysian Happenings of the International Journal of Therapy escape you. 224 F. 9th St., Cinn., O.

MEDICAL SOCIETIES.—No man outside of medical societies can expect to advance in knowledge as rapidly as those who are regular in attendance.—*W. Va. Med. Jour.*

DOGMATIC AND INTOLERANT.—An intelligent laymen thus expressed himself to *American Med.* on a prominent practician: "As dogmatic and intolerant as ignorant."

WISE AND GOOD-LOOKING.—If the editors of *Southern Medicine and Surgery* are as wise as they are good-looking they will make that journal one of the first in excellence.

LUMBAGO.—Fifteen drops of fluid extract of colocynth in 4 ounces of water, one teaspoonful every fifteen minutes will break up an attack of lumbago. I have never tried colocynthin but I am prepared for the next case.—Daugherty-Traxler.

LOST VOICE.—Calcidin, gr. 1-3 every 20 to 60 minutes on tongue will restore a lost voice in an acute attack of laryngotrachitis in less than one day.—Daugherty-Traxler.

EYE PERFECT? NOT AT ALL.—The idea is general that the eye is a wonderfully perfect organ, which it most emphatically is not. Examine school children's eyes.—*W. Va. M. J.*

IODISM may be caused by the administration of iodides, in case of hyperchlorhydria of the stomach; prevented by giving milk or other albuminous food or alkalies with it.—Heinen.

SALOL exerts its intestinal antiseptic power only after decomposition and through the phenol set free; the sulphocarbolates act as such and not by decomposition.—*Med. Era.*

UNNECESSARY OPERATIONS.—Bevan enumerates nine unnecessary operations inflicted on women by alleged surgeons. Thirty per cent of these he terms unnecessary.—*Surg., Gyn., and Obst.*

WARTS.—Ten grains of mag. sulph. t. i. d. for thirty to thirty-five days will positively remove from hands warts that had resisted all caustic treatment for two to four years.—Daugherty-Traxler.

BEE POISON contains a prolecithid of toxic or amboceptor-like character, which unites with lecithin to form a peculiar hemolytic toxolecithid. —*Monitor.* Now we understand just why black mud eases the sting.

"WAY DOWN EAST."—Life dribbles along in a leisurely way down east, and the *B. M. and S. J.* records the deaths of a woman at 102 and a man at 101 years. And yet Cabot and Eddy insist there is no virtue in drugs.

PULMONARY EDEMA.—In urgent pulmonary edema the consensus seems to be to give morphine and glonoin freely. Glonoin and strychnine may be given together, with atropine for low arterial tension.—*Therap. Gazette.*

ALKALOID FROM ERGOT.—A new alkaloid is reported from ergot, which has resisted crystalization but forms crystalized salts with acids. It gives the vasoconstrictor, musculoconstrictor and sympathetic paralytic effects of ergot.—*B. M. J.*

ACID INDIGESTION.—The most common cause of indigestion is the presence of too much hydrochloric acid in the stomach. The pain of hyperchlorhydria is relieved by taking food or alkalies. It starts one to three hours after meals.—Heinen.

"SCIENTIFIC" MEDICINE.—While scientific medicine has made wonderful advances in the last half century, the art of medicine has deteriorated. Perhaps patients think us more interested in the scientific aspects of their cases than in their immediate welfare.—Hornibrook.

DELIRIUM or other brain symptoms during erysipelas have nothing to do with meningitis;

caused by high temperature or toxemia. Any person with even the smallest wound should be careful not to come in contact with an erysipelas patient.—Heinen.

INFLUENZA.—For dry and paroxysmal cough, heroin hydrochloride gr. 1-30 to 1-12 every one or two hours.—Hector MacKenzie, *Practitioner.*

INFLUENZA.—Broadbent strongly commends quinine as prophylactic, gr. 2 every morning; also as the best remedy for the disease.—*Practitioner.*

INFLUENZA.—Burney Yeo advises for influenza two days' treatment with salicin, followed by quinine. Tessier also lauds quinine.—*Practitioner.*

GOOD NUMBER.—The *Practitioner* for January is devoted to the single topic of Influenza, and gives a quantity of valuable material, therapy somewhat vague.

INFLUENZA.—For frequent and severe cough, morphine, apomorphine and a cyanide preparation, occasionally.—Hector MacKenzie, *Practitioner.*

CONVULSIONS of infancy are too commonly accepted as fortuitous, their ulterior bearing overlooked or passed with a show of hopefulness.—Church.

CODEINE IODIDE. — Labadie-Lagrave recommends codeine iodide, gr. 1-6, eight or ten times a day, as effective in asthma. A dangerous palliative only.

ENURESIS.—The underlying substratum of perverted or incompetent innervation is the field in which the inciting cause works.—Church, *Chi. Med. Rec.*

GASTROINTESTINAL INFLUENZA.—Intestinal antiseptics should be tried, and strychnine, digitalis, and alcohol will probably be needed.—Dalton, *Practitioner.*

NERVOUS CHILDREN.—Among nervous children there is a tendency to delirium toward or during the night in low grades of fever.—Church, *Chicago Med. Recorder.*

INFLUENZA.—Allbutt finds that the sweats of influenza are controlled by the nitrites, amyl nitrite m. 1-30, four times a day.—*Practitioner.* (*Use glonoin*).

ALCOHOL IN INFLUENZA.—Alcoholic stimulants are generally not only unnecessary but positively harmful in the treatment of influenza.—Sir John Moore, *Practitioner.*

NEUROTIC EAR-MARKS.—Dermatitis herp., xeroderma pigm., ichthyosis, vitiligo and scleroderma are always earmarks of the neurotic make-up.—Church, *Chi. Med. Rec.*

STILL GROPING.—For influenza the English are still groping among the coal tars, salicylates, cinchona alkaloids, ammonias, and various mixes containing anodynes and tonics—nothing definite; no crisp, clear-cut indications met.

SPEECH DEFECTS.—Retarded development of speech and defects such as stammering and unusual lisping are the common appanage of neurotic children.—Church.

THE DRINKER.—Infection in the steady though moderate drinker is a thing greatly to be feared. Such a person has not half a chance in the battle for life.—Neilson.

LACK OF RESISTANCE.—Some children "take everything." This lack of resistance is commonly coupled with bad heredity—as to nervous stability and mental poise.—Church.

PHYSICIANS MUST DO THIS.—Physicians must see and examine cases, study indications and contra-indications; not so with the patent medicine man. —*Ohio State Med. Jour.*

A STIFF BILL.—Georgia has passed a pure food and drugs bill so stiff that one wonders what the crackers will do with the money they have been giving the patent medicine men.

TERRIBLE!—Under the influenza and unseasonable weather Chicago's death rate has risen until it almost reaches New York's lowest mortality, spreading terror among the health authorities.

HIGH TEMPERATURES and other evidences of toxemia are not all due to the specific infection but in their production the toxins absorbed from the digestive tract play a very important part.—Neilson, *Milwaukee Med. Journal.*

RHEUMATIC ARTHRITIS.—The prompt relief from rheumatic arthritis is due to the rapid excretion of salicylic acid into the joints affected. Treat rheumatism at once with large doses of salicylic to destroy microbes in the blood and joints before they get beyond its reach.—*Stockman.*

PHYSOSTIGMA ALKALOIDS.—Naylor says commercial extracts of physostigma contain from 1 to 10 per cent of total alkaloids, antagonistic but not separated by assay. While the alkaloids of physostigma are antagonistic they are considered *en masse* in the official assaying process.—*Pharm. Rev.*

URIC ACID.—Careful experiments by Jackson and Blackfan show that colchicum and sodium salicylate each increases excretion of uric acid. Alcohol, colchicum and salicylate increase uric acid by increased destruction of nuclein compounds, and are hence not useful in gout.—*Alb. M. A.*

MILITARY SURGEON.—Mindful of the brevity of human life and the multiplicity of human obligations, Major Pilcher has reduced the name of his journal to "*The Military Surgeon,*" retaining the sub-title of "Journal of the Association of Military Surgeons of the United States," for the use of those who, like H. T. Patrick, do not believe that brevity is the soul of wit.

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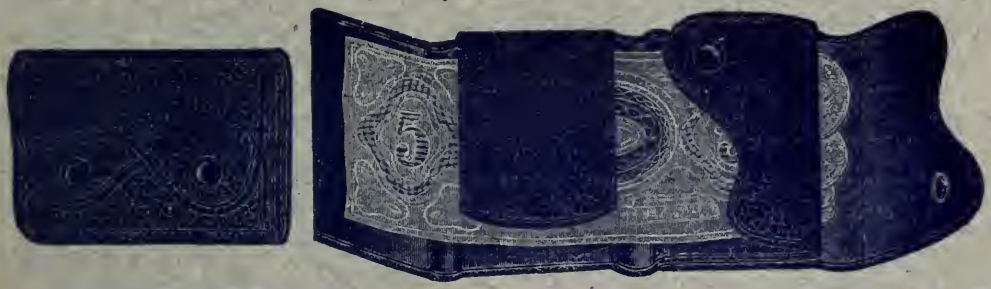

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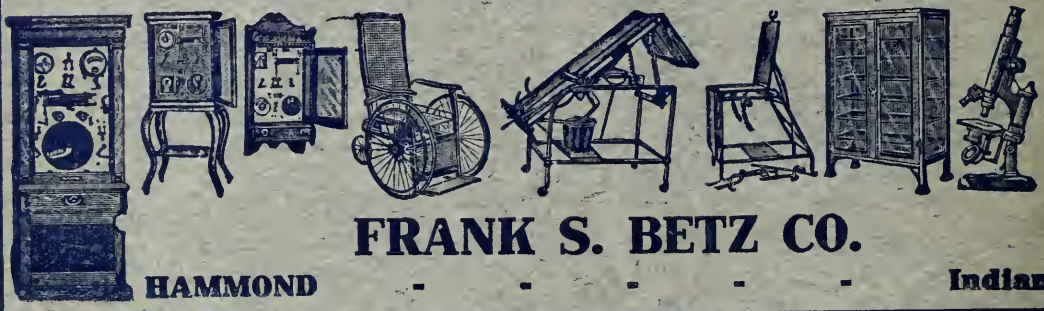

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